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TWO CASES OF THE BOWEN TYPE OF EPITHELIOMA *

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SAN FRANCISCO

Drs. J. T. Bowen of Boston and J. Darier of Paris have reported six cases of unusual precancerous dermatoses with their individual histopathologic findings. Dr. Walter Heilmann of New York has recently reported a seventh case. Two similar cases have come under our observation, and are being reported on account of the rarity of the disease, and because of the interesting results obtained from varied forms of treatment. Clinically, the disease has a characteristic appearance, especially when numerous lesions are present. When analogous lesions were compared, the microscopic picture was the same in both cases. Three types of visual manifestations of the malady were noted, namely, the nodule, the plaque, and the fungating growth. From a clinical standpoint these lesions can be summarized as follows: (1) The nodule corresponded to the ordinary rodent type, except that it showed little tendency to spread peripherally; the nodules appeared independent of and, in some instances, associated with the plaques, and in the cases here reported the nodule seems to have been the first sign of the disease to present itself. (2) The plaque is, as a rule, either round or ovoid in shape, deep red in color, the border being commonly sharply defined, although it does at times fade away into the normal color of the unaffected skin. It is to the plaque-form of the disease that the term "precancerous" is applicable; but since the plaque is only one variety of the clinical types of the affection, and inasmuch as the other types are characteristically epitheliomatous, it seems best, for the present at least, to class the malady under the name of "Bowen's type of epithelioma." The induration of the borders of the plaque cannot be appreciated unless the skin is made taut, and with

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this manipulation a slight rolling of the border is occasionally perceptible. Spontaneous clearing has occurred in the center of the plaques, in the way of cicatrization; but, without treatment, no form of the disease has healed permanently. (3) The fungating growth is indistinguishable from a papillary carcinoma, and does not appear until the disease is of long standing.

REPORT OF CASES

CASE 1.—History.—A general summary of the case of Mrs. W. is as follows: Her parents died at an advanced age, cause unknown. Two brothers and one sister succumbed to a disease manifested in the main by pulmonary signs and symptoms, and called consumption at that time.

The patient, a multiparous woman, aged 57 years, has spent most of her life in California, about the San Francisco Bay District, now resident in San José. During childhood she had varicella, pertussis, pneumonia, and some intestinal disturbances which she called "cramps." Later diseases were measles at 30 and typhoid fever at 40 years of age. She has suffered no serious accidents, and, prior to her entrance into the hospital, had undergone no surgical operations. Her menstrual periods began at 18, and were irregular and painful until the birth of her first child. Menstruation ceased at 42. She has been pregnant ten times, four pregnancies terminating normally and six of them interrupted by spontaneous abortion. The living children have shown no cutaneous lesions which could be likened in any wise to those of the mother.

She has been under observation for a period of eight years. Repeated physical examinations, aside from her skin condition, have given practically negative results. Slight traces of albumin have been present in the urine at times; a moderate degree of leukocytosis has occasionally occurred, from 10,000 to 14,000, but the differential blood-count has remained normal. Negative Wassermann reactions have been constant findings in the blood serum.

She entered the University of California Hospital in August, 1909. Her extreme obesity made it almost impossible for her to walk unaided. The adiposity of the patient is mentioned merely to emphasize the fact that her pathologic skin condition has not reduced her fat-storing ability.

Examination.—To regard the case in its detailed presentation, three types of dermal pathologic changes were present. There were: (a) what has been styled the plaque; (b) a nodule, and (c) a fungating neoplasm. From a clinical viewpoint they are taken in the order named.

The Plaque: It varied in size from that of a pin-head to that of an adult palm. Usually of a deep red color, but occasionally tinged with yellow. As a rule oval in configuration; still, an irregular outline was noted in a few forms of this type of the disease. The plaques were present in greatest number on the anterior and posterior portions of the trunk. Their borders were usually sharply defined, but now and then they faded away into the normal color of the skin. Nearly all of the plaques showed a certain amount of furfuraceous scaling. On palpation induration could be sensed only at the borders, and at that only in a moderate degree. When pressure was exercised on these plaques, such as with vestimental or posture conditions, ulceration had appeared. Crust formation every now and then presented itself in the center or at the border of these lesions. Central spontaneous clearing of the plaques was not an infrequent finding, however, and at no time have the plaques entirely disappeared without treatment.

The Nodule: This type of lesion was probably the first to appear, and was confined chiefly to the face. Most of the nodules progressed slowly and showed little tendency to ulcerate. They were firm to the touch, waxy in color, with a shining surface and many of them presented telangiectases.



Figure 1

Fig. 1 (Case 1).—Photograph taken in 1907, at the time of entrance into hospital.



Figure 2

Fig. 2 (Case 1).—Photograph taken in 1908, showing improvement under treatment.



Figure 3

Fig. 3 (Case 1).—Present condition of patient's back, 1917.



Figure 4

Fig. 4 (Case 2).—Before treatment, 1917.

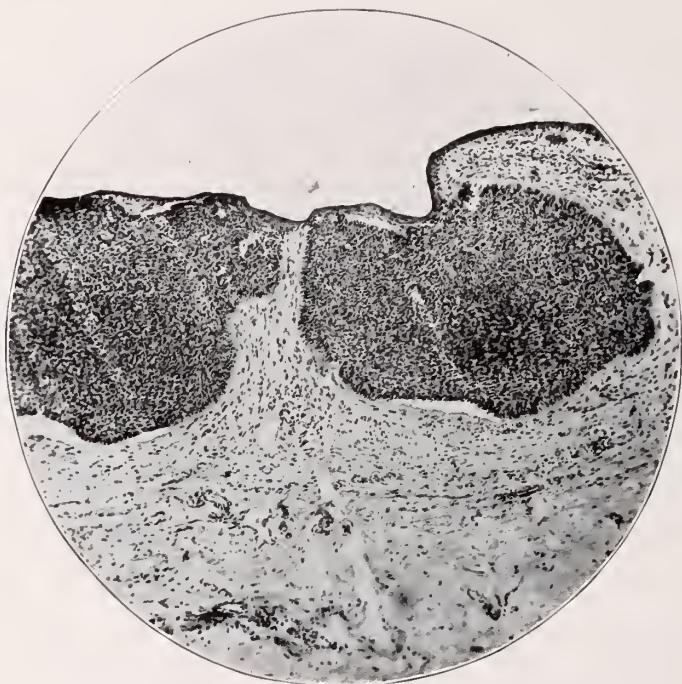


Fig. 5 (Case 1).—Low power view of section through nodule.



Fig. 6 (Case 1).—Higher power view of section through nodule.

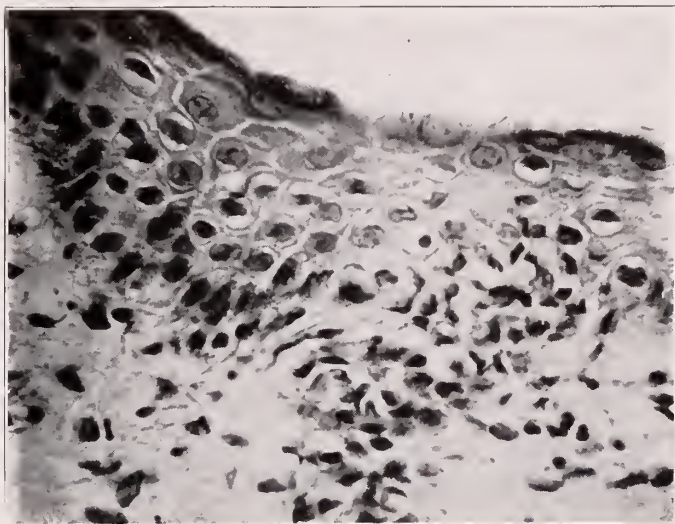


Fig. 7 (Case 2).—Oil immersion detail from epidermis, showing columnar arrangement of cells, irregularity of cells and nuclei, and a few vacuolated cells.

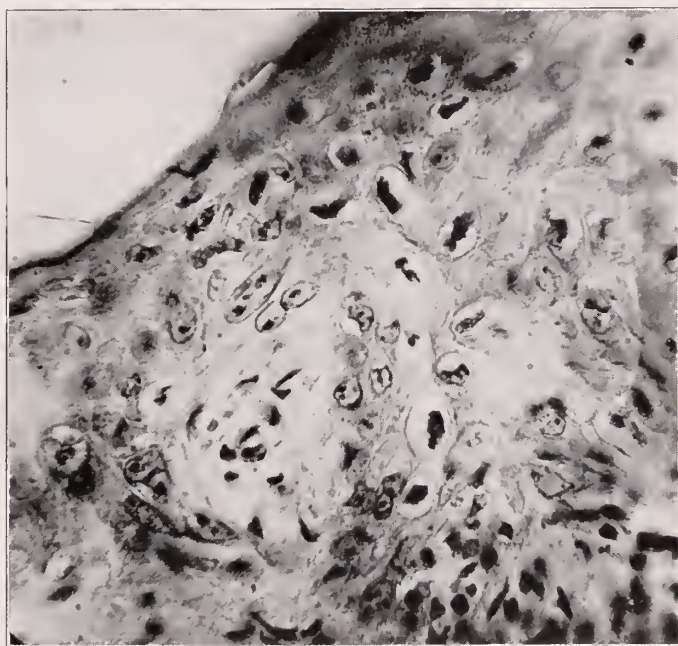


Fig. 8 (Case 1).—Oil immersion detail from epidermis, showing irregularity in size and shape of cells and nuclei, plurality of nuclei in single cells, and a number of vacuolated cells.

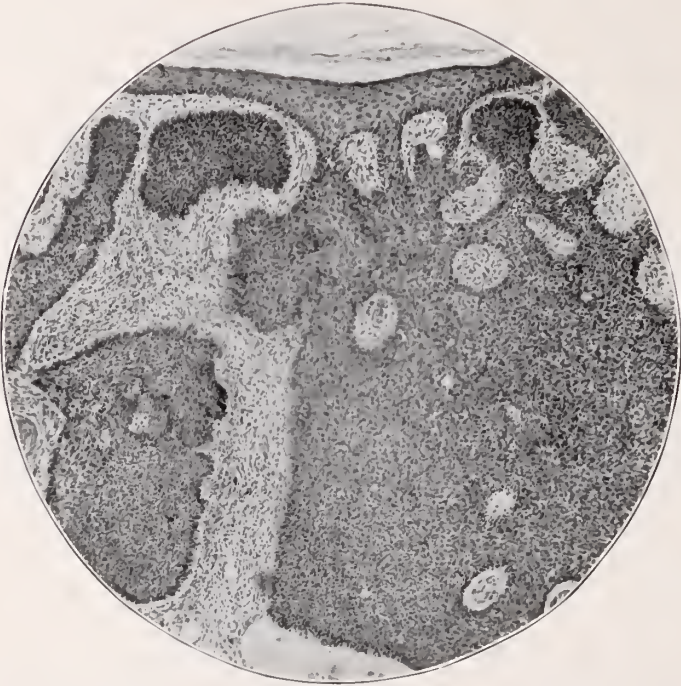


Fig. 9 (Case 2).—Low power view of section through nodule.

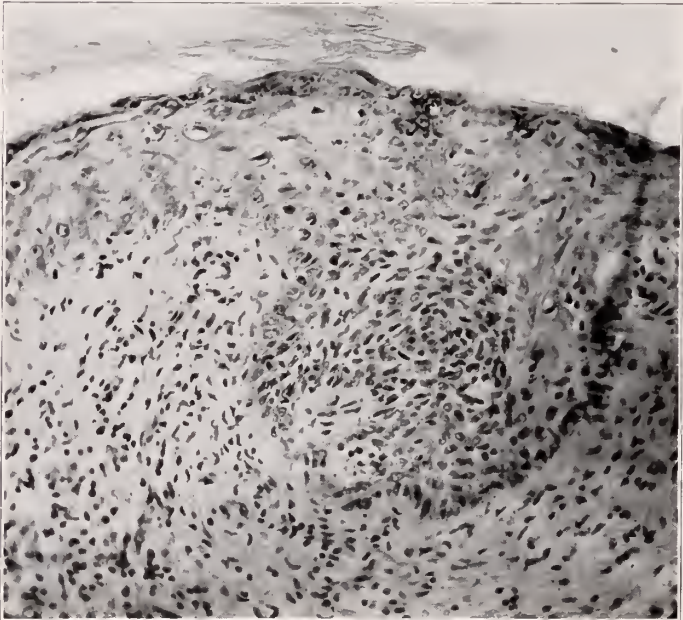


Fig. 10 (Case 2).—Low power view showing hypertrophy of the rete into the corium, irregularity in size and shape of cells and nuclei, and exaggerated desquamation of the stratum corneum.

The Fungating Growth: The fungating variety of lesion was best developed in the groin, about the umbilicus, and on the scalp. It varied in size from that of an almond to that of a chicken egg. These growths were deep red in color, bled freely on the slightest trauma, and in the flexures macerated easily, giving rise to a nauseating odor. On palpation of their borders, deep-seated infiltration was not appreciable, the tendency of the growth being outward and not toward the deeper structures.

Notwithstanding the great amount of cutaneous involvement by these various forms of epitheliomatous new-growth, the subcutaneous lymph-nodes have never been palpably enlarged.

HISTOPATHOLOGY

Biopsies were made at different periods during the years that the patient has been under observation. These were taken from every type of lesion, and microscopic examination gave the ensuing findings:

The Plaque.—In this the superficial layers of the epidermis were in part intact, the stratum granulosum being usually discernable. There was a marked hypertrophy of the rete Malpighii, taking the form of a sharply defined down-growth. This down-growth was never so extensive in the plaques as in the nodular and fungating lesions. The superficial layers of the rete presented numerous atypical cellular changes, the most noteworthy of which was that of vacuolization of some of the cells. Many of these vacuolated cells contained nuclei which were morphologically and tinctorially normal and surrounded by distinct cell-membranes. Vacuolated cells could be found which contained two or more nuclei. In some areas cell-membranes were present devoid of both nuclei and protoplasm. Every now and then two or more cells in the rete were seen to be arranged in rows, closely resembling grains of corn on the cob. The corium showed changes from the normal state, chiefly evidenced by a dilatation of the blood and lymph vessels, an increase in the connective tissue elements, and by diffuse round-cell and plasma-cell infiltration, as well as varying degrees of edema. These pathologic features in the corium persisted in all three types of lesions, but were most evident in the fungating variety.

The Nodule.—Microscopically this did not differ from the basal-cell type of epithelioma.

The Fungating Growth.—The outermost layers of the epidermis were here entirely wanting, and the tumor masses consisted throughout of a kind of cell indistinguishable from that which composes the normal rete.

TREATMENT

The treatment has consisted of excision; curettage with subsequent chemical cauterization, such as by the use of trichloroacetic and chromic acids, and massive doses of the roentgen ray and radium. Except for the growths in the flexures, there has been little tendency toward recurrence after any form of treatment, if thoroughly carried out. Inasmuch as the fungating type of neoplasm was mainly removed by surgical procedures, it is impossible to say what the effect of radium might have been on it. It is certain, however, that the plaques and nodules would have disappeared rapidly under its use.

PRESENT CONDITION

General health unimpaired, no loss of weight, and, aside from her skin, physical and laboratory examinations are negative. Covering a palm-sized area over the lower back are fifteen nodules, the size of a lentil or larger, super-

ficially infiltrated, of an apple-jelly color, and a few of them have become confluent. In the center of the confluent region there is a tight crust about as large as a lima bean. Six inches above this nodular area there are two oval plaques which have sharp borders, and are as large as a turkey egg. Their borders are not perceptibly infiltrated. They are quite dark red in color and a trifle scaly. In the center of these plaques there is atrophic tissue from apparent healing. A similar plaque is present on the right shoulder, adjoining an old scar. Crusts appear on this latter lesion, evidently covering superficial ulcerations. On the same shoulder there is a lima bean sized nodule which does not differ in any respect from the rodent type. On the chest and abdomen there are about two dozen papular processes of the size of a millet seed or lentil, of a deep red-brown color, grouped, and a few of them have coalesced. In the left groin there are two lesions which have never completely healed, despite various forms of treatment. A red bean-sized, infiltrated ulcer presents at the upper end of the scar which has resulted from the various forms of therapy employed in the past, while a larger one persists at the lower end. Both ulcers are surrounded by infiltrated, waxy borders, and are distinctly epitheliomatous. At the time of writing this article these ulcers are healing under radium therapy.

In addition to these active forms of her disease the patient is literally covered with large and small cicatrices, marking the sites of plaques, nodules and fungating neoplasms which have healed, following manifold forms of treatment.

CASE 2.—*History*.—Mr. S., aged 52, was in good general condition. He gave a mild alcoholic history, but negative family history. On physical examination, aside from the skin lesions, nothing was found except a slightly enlarged prostate and some dilated venules in the hypogastrium. The patient gave the history of two attacks of renal colic accompanied by the passage of calculi. Subsequently he had hematuria for two years after the passage of the stones, but this hematuria had not been attended with renal lithiasis.

The skin condition consisted of seven plaques on the shoulders and back, and a number of rodent-like nodules in the plaques and at other positions independent of them. The plaques which showed the nodules in intimate association with them were situated on the shoulders. The plaques were oval, deep red in color, all with furfuraceous scales, all with sharp borders, and without deep-seated infiltration. Some of the plaques showed faint cicatricial atrophy in the centers. The plaques had been present for two years, they had been increasing in size and number, and at no time had they showed any tendency toward spontaneous healing. There was no palpable adenopathy. In contrast to the case of Mrs. W., this patient presented several dozen seborrheic warts. The latter were most prevalent on the back and chest.

HISTOPATHOLOGY

Biopsies were made from both the plaque and the nodule in the case of Mr. S. Microscopical examination of the tissues thus obtained gave the following findings:

The Plaque.—The epidermis was thickened at the border of the lesion and lessened as the central portions of the plaque were approached. Proliferation of the rete cells, with an intracellular edema, was not an uncommon finding. Many of these cells were irregular in shape, and a few of them were unusually large. Their nuclei in places were much larger than normal, stained deeply, and when two or more nuclei appeared in one cell-membrane, they seemed at times to be fused. Nuclear detritus, surrounded by a faintly defined membrane was apparent in some fields. Vacuolated cells were encountered in all the layers of the epidermis. In the outermost layer of the stratum corneum an isolated cell occasionally presented itself which had not undergone the natural

process of cornification. Generally the horny layer was thickened, and in several places raised up in a lamellated manner, the extent of which was in direct proportion to the amount of desquamation and edema. The papillary layer was edematous, its vessels were dilated, and it was diffusely infiltrated with round and plasma cells.

The Nodule.—Sections from a nodule showed a deeper infiltration of the rete cells into the underlying structures, and with a tendency for the cells about the borders of these down-growths to arrange themselves in a columnar formation. The rete cells in the nodule were more regular in size, and did not show as many nuclear changes as appeared in corresponding areas of the plaque. In other words, they closely resembled in a structural sense the cells composing an ordinary basocellular epithelioma.

TREATMENT

In this case the treatment has consisted of massive doses of the roentgen ray and radium. The most satisfactory method has been the use of radium, the plaques and nodules both clearing under its application and leaving only faint scars. Undoubtedly the same results could have been accomplished by excision or by curettage followed by cauterization, but in that case the scars would have been very much more marked and the treatment more painful and disagreeable.

DISCUSSION

DR. HARTZELL said that as to the first photograph shown of the face, he thought there could be little doubt that it represented a very typical case that had been described under a variety of names, multiple benign cystic epithelioma and tricho-epitheliomata, and the histologic slides simply proved the clinical diagnosis.

As to the case in which there were patches on the back, that represented a different sort of thing altogether. Many of these patches resembled very much senile keratosis with seborrhea added. He had had under observation for twenty years a man who had had a dozen such patches on various parts of his trunk and face, and these sooner or later became epitheliomata. This latter condition was probably related to that described by Bowen and later by Darier as "les keratoses precancereuses."

DR. HEIMANN said he was glad Dr. Morrow had brought this subject before the Society. The term precancerous in the sense in which we used it, indicating that a thing will inevitably become cancerous, was a misnomer. We could offer the suggestion, based on clinical experience, that this type of lesion may undergo malignant change. It was just as absurd in his mind to call such a lesion precancerous as to call premycotic dermatosis premycotic. We could not consistently call it premycotic until mycosis had developed or until we recognized the presence of mycosis. Before that we had no means of judging actually whether certain lesions had become precancerous or not, and he should hesitate to make a statement of this sort before a mixed group of physicians because he thought it was essential, so far as the public was concerned, that they should be warned of the danger of certain lesions undergoing malignancy. Even among ourselves we knew the use of the term was not scientific, and he so expressed his views regarding the matter at a meeting of the American Society for the Control of Cancer, criticizing, in the same manner as Dr. Morrow had done, Dr. Bowen's conception. He had a letter from Dr. Bowen in which the latter thought his point of view was logical, and he would suggest calling a thing cancer, recognized as a clinical type first isolated by Dr. Bowen, dropping the term precancerous. If we thought precancerous lesions were

present, we could recognize their significance without stating the facts, because there were no facts to state.

DR. HARRIS said he was interested in the case of Dr. Morrow, as it represented an example of a number of cases he had observed. He had seen in Chicago in the last year, five different cases. Dr. Ormsby showed one before the Chicago Dermatological Society. Some of these cases were exhibited under the diagnosis of generalized Paget's disease in which we had from the beginning carcinomatous change. The wide distribution indicated that it might be nevoid in character. They represented a large number of basal-cell carcinoma in which we saw various stages in the moles shown by Dr. Morrow, with down-growth in the rete, in which we found typical basal-cell epithelioma and even large fungoid masses. Beginning very early with discoloration of the skin, there was slight infiltration, hardly demonstrable, and a brownish color, and that showed the stage mentioned by Dr. Morrow with existing down-growth in the rete. These lesions were carcinomatous from the beginning.

DR. MORROW said he did not think there could be any question but that these cases were carcinomatous from the start, and all that the plaques needed to become clinically carcinomatous was irritation to change a large plaque into a basal-cell carcinoma.

The reason he brought these cases up was to bring out a discussion in regard to classification. He thought that the designation "Bowen type," as he described it, will do temporarily at least. He did not see how we could classify these two cases under the head of multiple benign epithelioma. If we had a picture of the face taken, and nothing else, we would think of that disease, but after studying the microscopic sections, these sections did not show histologically the characteristics of multiple benign cystic epithelioma. The lesions on the body were apparently of one type, epitheliomatous from the start, some developing into plaques, some into nodules, and some into fungating epitheliomata. Notwithstanding the great amount of growth in the groin, around the umbilicus and in the axilla, and notwithstanding the great amount of papillary overgrowth in these flexures, up to the present time there had been no involvement of the neighboring lymphatic glands.

ERYTHEMA MULTIFORME, ASSOCIATED WITH CUTANEOUS PIGMENTATION (MELANIN)

CLINICAL AND PATHOLOGIC REPORT OF FIVE CASES *

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In the early history of dermatology various forms of erythema, acute exanthemata and inflammations of the skin were grouped together. Plenck, Sauvages and others, in the latter part of the eighteenth century, gave such a classification. Willan, in 1808, separated the acute exanthemata from the inflammations of the skin due to external irritants and designated the various forms of erythema that occurred from internal causes as definite entities. His classification was a quantitative one, namely, roseola for a small-sized eruption, and erythema for a larger-sized eruption. He also used a qualifying adjective to indicate the particular etiologic or clinical features.

This classification was only short lived, for Hebra, recognizing its indefiniteness, pruned and consolidated the various forms of erythema and classified them according to the following arrangement: The general classification, polymorphous erythema, was subdivided into (1) urticaria; (2) roseola exudativa; (3) erythema nodosum, and (4) erythema exudativum or multiforme.

He called particular attention to group 4, in which most of the confusion existed and characterized all the different types of lesions that occurred as one and the same disease. Not desirous of adding any new names to the then already heavily burdened dermatological nomenclature, he used rather terms in use for his classification.

According to Hebra, the various forms of erythema, accompanied by exudation and characterized clinically by a polymorphous eruption in which papular, vesicular, bullous, nodular, edematous and hemorrhagic elements were present, belonged to erythema exudativum multiforme or erythema multiforme.¹

Polotebnoff,² in 1887, disapproved of Hebra's classification of the erythemas for the reason that the absence of a visible exudation from an erythema did not preclude the presence of inflammation, also the concomitant presence of the other types of erythema in erythema nodosum showed the latter to be only another type of erythema multiforme. He claimed that all the various forms of erythema belonged to one group—inflammatory erythemas, and that the different etiologic

* From the Department of Dermatology and Syphilology, Columbia University, College of Physicians and Surgeons. Received for publication, April 5, 1917.

1. Hebra: *Diseases of the Skin*. New Sydenham Society, 1866, p. 284.

2. Polotebnoff: *Zur Lehre von den Erythem*. Monatsh. f. prakt. Dermat., Hamburg, 1887, 6, p. 5.

ical factors acted with different degrees of intensity, producing a variety of lesions which were generically all alike.

Payne³ also said that the different forms of erythema might be produced by one pathologic cause acting with different degrees of intensity. His division of the erythemas was as follows:

1. Toxic erythema; produced by drugs, poisons (bacterial, protein, etc.).

2. Symptomatic erythema; prodromal rashes in contagious diseases, purpura in rheumatism, roseola of cholera and influenza, erythema in uremia.

3. Idiopathic erythema; (a) eruption, simple or multiform, constituted the disease; no temperature, no general disturbance, rash faded early; (b) general constitutional disturbance; eruption might be painful, itching or burning; (c) eruption persistent, depended sometimes on successive crops, but in other cases the same lesion remained in the same spots during the whole duration of the disease.

This classification differed from that of Hebra in that it was not based on the degree of the inflammatory process (exudation) but on etiologic findings and clinical appearances alone. The fault with it was that, when the cause for the eruption was not found, it was an idiopathic erythema, simple or multiform; was the cause known it was a toxic or symptomatic erythema, although the eruptions might be identically alike.

On the other hand, Hebra's classification was also lacking in completeness, for how were we to classify an eruption that at one time was an urticaria, at another a purpura and at still another an erythema, when it occurred in the same patient? Sometimes all these three elements and more, might exist at the same time in the same individual.

Osler⁴ cited such instances, and remarked that "what is needed in truth, is a dermatological Linnæus to bring order out of the chaos existing in the group of erythemas."

Dermatologists even disagreed as to how the pathologic processes originated in the skin. Neisser, Kreibich and Bruck (cited by Fordyce⁵), thought it was due to a stimulation of the vasomotor apparatus; Phillipson, Török, Gilchrist⁶ and Samberger⁷ thought the process

3. Payne: Persistent Erythema and Its Treatment. Brit. Jour. Dermat., 1894, 6, p. 128.

4. Osler: Visceral Manifestations in Erythema Exudativum Multiforme. Am. Jour. Med. Sc., 1895, 110, p. 629. Osler: The Visceral Lesions of the Erythema Group. Brit. Jour. Dermat., 1900, 12, p. 227. Osler: Chronic Purpuric Erythema, with Enlarged Liver and Spleen and Groin Glands. JOUR. CUTAN. DIS., 1903, 21, p. 298.

5. Fordyce: Anaphylaxis. JOUR. CUTAN. DIS., 1912, 30, p. 128.

6. Gilchrist: Some Experimental Observations on the Histopathology of Urticaria Factitia. Internat. Dermat. Congress, New York, 1907, 2, p. 905.

7. Samberger: Die Entzündliche und Urtikarielle Hautreaktion. Dermat. Wchnschr., 1915, 61, No. 27, p. 763.

was due to the action of circulating toxins on the endothelial cells of the cutaneous vessels.

If one conceded that the pathological pictures of the entire erythema group were practically the same, differing only in the degree of the inflammatory process, and that they were the result of chemical poisons of various origins, acting in each case differently, perhaps some measure of definite classification could be attained.⁸

To the latest conception of the erythemas as being of an anaphylactic nature, Fordyce,⁵ Anthony⁹ and McBride and Shorer¹⁰ offered another possibility, the further study of which might lead to a clearer conception of these skin diseases.

With this preliminary survey of the subject, the report of five cases classed as erythema multiforme is appended, the clinical appearances and the pathologic findings being of sufficient interest to merit making a record of them.

CASE 1.—History.—The patient, Mr. H. I., aged 32, was married and a native of Roumania. He had been living in the United States about fifteen years; was always a resident of New York City, with exception of two weeks in Birmingham, Ala., and three months in St. Louis. His occupation had been that of tin soldering; but for the past ten years he had been a book agent. His wife and two children were in good health. His father died of pneumonia when 34 years of age; his mother was alive and well, and 54 years old. One sister died in infancy—the cause of death was not known. His two brothers were in good health. There had been no rheumatism, tuberculosis or syphilis or any skin disease in the family. When a child he had measles, with a good recovery. Until the age of 15 years, he was always of a delicate constitution. Between the ages of 10 and 12 he used to suffer from nosebleed and headaches; these occurred every three to four days. He was told he had "poor blood." He had been in good health since, with the exception of occasional occipital headaches and nosebleed. He had been suffering from constipation for the past three or four years, but had no cramps. His appetite had always been good. He never smoked nor drank, and he denied taking any medicine except for constipation. His diet included sharp foods and delicacies. His first attack of gonorrhea was eight years ago and was cured. Three years ago he had another attack of gonorrhea, was treated for two months and had a good recovery. He denied syphilis.

Physical Examination.—The patient was of blond type, of vigorous constitution and good color. His weight was 137 pounds; his height was 5 feet and 4 inches. Scalp and eyebrows were normal. The pupils reacted normally; the conjunctivæ were clear. The nose and throat were negative. The teeth were examined by Dr. H. A. Kauffer and showed apical abscesses of the first upper left molar and right bicuspid. There was no enlargement of the lymphatic glands. The ears, mastoid, larynx and thyroid were negative. The heart and lungs revealed nothing abnormal; the pulse was normal; the blood pressure was, systolic, 110; diastolic, 70. The liver and spleen were not enlarged. Roentgen-ray examination of the abdomen revealed ptosis of the stomach and colon. The knee jerks were active. Sensations to hot and cold and touch were normal; no

8. Schamberg: An Inquiry Into the Etiology and Nature of the Toxic Erythematata. *JOUR. CUTAN. DIS.*, 1904, 22, p. 461.

9. Anthony: Toxic Origin of Erythema Multiforme. *JOUR. CUTAN. DIS.*, 1912, 30, p. 152.

10. McBride and Shorer: Erythematous and Urticarial Eruptions Resulting from Sensitization to Certain Foods. *JOUR. CUTAN. DIS.*, 1916, 34, p. 74.

anesthesia; no ataxia; no Babinski; no ankle clonus, and rectal examination was negative.

Clinical Examination.—The examination of the blood revealed: Hemoglobin, 90 per cent. (Tallqvist method); red blood corpuscles, 5,200,000; color indexes, 1; leukocytes, 8,600; polymorphonuclears, 72 per cent.; lymphocytes, large and small, 12 per cent.; mononuclears, 16 per cent.; eosinophils, 0; basophils, 0; blood platelets present but not counted; no other abnormal findings; coagulation time of blood, three minutes; Wassermann test was negative; complement fixation test for gonorrhea was negative; urine was amber, clear and acid; specific gravity, 1.022; no albumin or sugar; faint trace of indican; the microscopic examination was negative; a culture from abscessed teeth showed *Streptococcus viridans* and *Diplococcus pneumoniae*; the feces contained no ova or parasites, no blood, no excess of fat, protein or starch.

Dermatologic History.—The patient had acne dorsalis ever since he came to this country. Five years ago he noticed a patch, the size of a silver dime, on the left corner of the upper lip. It was blotchy and covered with scales. It did not itch and lasted eight days. This eruption occurred about six times in the same location. For the past two years he had been complaining of itching, immediately followed by a rash on various parts of the body, namely, the back, shoulders, elbows, backs of wrists and fingers, buttocks, penis, knees and toes, and of smarting of the tongue and lips. This lasted about one week and then disappeared with the exception of the rash on the shoulders, back and buttocks, which remained. These attacks recurred every six to eight weeks, and the spots that persisted always participated in the recurrences by a surrounding fresh areola of redness.

When he came under observation at the Vanderbilt Clinic, Sept. 27, 1915, there were noticed dime-sized, circular lesions on the left shoulder, uniformly bluish-red and somewhat scaly, slightly elevated above the surrounding skin and the margins slightly thickened. Similar lesions, but smaller, were present on the right shoulder. On the right buttock near the internatal cleft, were two lesions, the size of a silver dollar. They had a violaceous center with a pink periphery. The surface was smooth and slightly scaly. There was very little display of colors in any of the lesions and a few were slightly raised above the surrounding skin, especially at the margins. He said that each relapse was preceded by nausea and headaches, and that constipation always caused an outbreak. He did not complain of arthritic pains, but did complain of itching at the site of the lesions.

Jan. 12, 1916, the patient presented denuded areas on the tongue and lips. On the right shoulder, below the posterior axillary fold, was a 25-cent piece sized, old pigmented spot; a few similar ones on the left side, in the same location. A silver-dollar sized, pigmented lesion was in the left deltoid region, a few smaller pigmented ones on the back of the left elbow, first and second interphalangeal joints, index and ring fingers on the left hand. One small spot was near the web on the back of the little finger, right hand, and a few smaller spots on the back of the right elbow. There was a dime-sized spot on the side of the nose, near the left eye. All lesions described under this date had persisted for six months and were of a slate brown color. He had had outbreaks on the glans penis which lasted only two weeks; these left no traces. He had a few small violaceous patches on the knees and toes. The patches on the buttocks were still present and looked the same as when he first came to the clinic, namely, of a bluish red color.

Histopathologic Examination.—A section was taken from the lesion on the right buttock, which was then of a bluish red color, and stained with hematoxylin-eosin. Polychrome methylene blue was used to detect mast cells and Weigert's stain for elastic tissue. Under low magnification the horny layer was slightly hyperkeratotic and edematous. The granular layer was missing in places, otherwise normal. The stratum lucidum was absent. The rete pegs were widened and slightly acanthotic. The basal layer was normal. The vessels of the

papillae and of the subpapillary regions were considerably dilated. The infiltration was perivascular, moderate in amount and confined to the papillary and subpapillary regions. Under higher magnification, the cells of the horny layer were loosely woven due to an edema and the granular layer was normal, absent in places. There was a moderate interstitial and parenchymatous edema of the rete cells and a few round cells, some containing a coarsely granular pigment, were found in this region. The basal layer was intact, the cells perhaps slightly edematous. The papillary bodies were enlarged and contained many round cells which completely surrounded the dilated vessels. The subpapillary vessels were dilated, the walls edematous and the lining endothelium swollen. A few of the larger vessels were engorged and contained coagulated fibrin and a few shadow forms of red corpuscles.

The infiltration was perivascular and consisted mostly of round cells and a few proliferating connective tissue cells. Lying in the dilated perivascular lymph spaces were a moderate number of pigmented cells. These were irregularly, pear shaped, two to three times the size of a round cell and contained coarse, dark brown granules, in all respects resembling melanin. Some of this pigment was found free in the lymph spaces of the collagen, but no evidences of red cells or hematin crystals were found. An occasional plasma cell, mast cell and polymorphonuclear were noted. The collagen was thickened due to edema, and the elastic tissue fibers were separated for the same reason. The glandular structures and appendages were normal.

CASE 2.—History.—The patient, Miss E. I., aged 19, was born in Russia; she was six years in the United States, always in New York City. Her occupation was that of trimmer.

Her father and mother were alive and well, aged 46 and 39 years, respectively. She was one of eight children and next to the oldest. There was no history of skin disease in the family. She was born at full term and breast fed. When a child she had measles, with good recovery. Eight years ago she had typhoid, also with good recovery. She had never had any other illness. Her habits were good. Her bowels were regular. Her menstrual history was negative. She denied ever taking any drugs. There was no loss in weight and at present she tipped the scale at 115 pounds. Her height was 5 feet and 4 inches.

Physical Examination.—With the exception of a slight hyperidrosis and tremor of the hands, nothing abnormal was noted. She was a brunette. Her teeth were in good condition. The blood pressure was 120 systolic and 75 diastolic. The Wassermann reaction was negative. The blood examination showed: red blood corpuscles, 4,000,000; white cells, 8,000; polymorphonuclears, 60 per cent.; lymphocytes, small, 23 per cent.; large, 17 per cent.; hemoglobin, 85 per cent.; the coagulation time of the blood was eight minutes. The examination of the urine was negative. The examination of the feces showed a small quantity of undigested food, otherwise it was negative.

Dermatologic History.—In June, 1915, red spots appeared on the skin in the stomach region, accompanied by burning and itching, which lasted about two days, the spots remaining. At first they were of a pink color, becoming bluish in two or three days. Three months after this first attack she had a recurrence, which was repeated every three or four weeks. Feb. 26, 1916, she presented a large number of macular, grayish-brown, flat patches, varying in size from the diameter of a pea to a child's palm, oval and circular in shape and scattered chiefly on the abdomen, thorax, breasts and upper extremities; two hemorrhagic, circular spots were present on the palate. The color varied from slight yellow to reddish. The old spots became redder with each new attack. She complained of pain in the extremities and the joints occasionally, but not with the attacks of skin eruption. June 24, 1916, dime-sized purplish spots were present on the dorsum of the right hand and foot. The eruption on body still presented a deep purplish color. Aug. 7, 1916, she went on her vacation to the mountains; she paid no attention to her diet; took no medication; felt much better; had no relapse; the spots on the abdomen and the chest were of a slate

brown color. On Aug. 14, 1916, she had had no relapse since she went to the country, but still had the old pigmented patches on the trunk. Jan. 15, 1917, no relapse had occurred, but the old patches were still present. March 15, 1917, no relapse had taken place, but the old pigmented patches were still present. They were of a slate brown color.

Histopathologic Examinations.—A section was taken from a pigmented spot in the left scapular region and stained with hematoxylin-eosin. Under the low power the horny layer was slightly thickened, laminated and loosely woven. The rest of the layers of epidermis were normal in appearance; an edema of the rete cells was evident and a slight acanthosis. The collagen of the papillary body was moderately edematous, that of the subpapillary region less so. The vessels of the papillary, subpapillary and midpapillary region, but especially in the last two, were dilated. A perivascular infiltration which consisted of many pigmented cells was noted. This occurred in some places more than in others. Under high magnification, the changes noted in the horny layer above were more distinctly visible. The granular layer was normal. The rete cell showed a moderate interstitial and parenchymatous edema and a few mitotic figures. The basal layer was intact. The collagen was undoubtedly edematous, especially in the papillary body. Located in the subpapillary and midpapillary regions and occasionally in the papillary body, were moderately dilated and edematous vessels, whose perivascular lymph spaces were quite dilated; in fact, the vessels appeared to be lying in a lake of lymph. In these lymph spaces were many pigmented cells or cells that had taken up yellowish brown granules. Aside from the fact that they were more numerous than in Case 1, they looked very much alike. Some free pigment, many round cells and fixed connective tissue cells made up the rest of the infiltration. An occasional polymorphonuclear in the vessel itself was noted. No mast cells or plasma cells were seen. The elastic tissue and glandular structures and appendages were normal.

CASE 3.—History.*—The patient, Mr. S. B., was aged 22, a Russian by birth, and four and one-half years in the United States, always in New York City, with the exception of one year ago, when he worked in the country for seven months. His occupation was that of a pocket-book maker. He was one of eight children, all of whom were living and well. His father and mother were alive and well. There was no history of any skin disease in the family. He said he never had any of the diseases incident to infancy and childhood. His habits were regular, he did not smoke or drink, and never took any drugs, and the only trouble that he said he had was a slight catarrh of the nose, for the past three years. For the past three years he had also been constipated. He began to have trouble with his skin about the same time.

Physical Examination.—Although built rather slender, he seemed to be in good health. He was dark complected. Other details were gone into as in the cases previously mentioned, but nothing abnormal was noted in the entire examination, both physical and clinical.

Dermatologic History.—The patient said that the eruption began three years ago, as small red "pimples" scattered over the backs of the hands, over the shoulders and on the back of the chest and on the buttocks; accompanying this eruption he had isolated purplish spots, varying in size from a 50-cent piece to a silver dollar, situated on the back of the left wrist, below the left clavicle, back of the chest, sacral region, left hip and right thigh. The red papules lasted two weeks and disappeared, leaving no trace, but the purplish spots remained and were still present after three years. In the beginning of this skin trouble he used to get fresh outbreaks every two or three weeks, then later on every two months. One year ago, while working in the country for seven months, he had no attacks. Since he was back in the city (for past year)

*Patient of Dr. Ludwig Weiss, through whose courtesy I was enabled to report this case.

his attacks were coming on about every two months. He had had no attack for the past seven months. Each outbreak was accompanied by itching but no premonitory symptoms were present. Since he was under the observation of Dr. Weiss and myself, no relapse was noted, but he described the outbreak as an occurrence of fresh red spots which lasted only a few days, whereas the large purplish and persistent patches seemed to deepen in color and show a pink margin.

Histopathologic Examination.—A section was taken from the bluish pigmented lesion on the left hip and stained with hematoxylin-eosin. Under low magnification, there was a hyperkeratosis of the horny layer and a slight acanthosis of the rete with an intercellular edema of the rete cells. The stratum lucidum was absent, the granular layer was thin and uniform. The papillary bodies were slightly edematous. The collagen also appeared edematous but particularly so in the subpapillary regions. The vessels of the papillary and subpapillary regions were dilated, especially the latter, where the perivascular infiltration was most marked. Under higher magnification, the horny layer was increased in thickness, loosely woven but not parakeratotic. The prickle cells were somewhat compressed by an intercellular edema and an occasional mitotic figure was noted. The stratum lucidum was absent, and the granular and columnar layers were normal in appearance; an occasional round cell was evident in the latter region.

The collagen in the papillary body was slightly edematous; in the subpapillary region it was fragmented and rarefied by the edema and infiltration present. The vessels in this latter region were dilated, especially the perivascular lymph spaces, which were markedly so. The endothelium lining the vessel wall was swollen. The infiltration was perivascular only and consisted of many round cells and a few proliferating and fixed connective tissue cells. An occasional polymorphonuclear and plasma cell was noted, but no mast cells or sign of hemorrhage were seen. A striking feature of this infiltrate was the presence of fair-sized pigmented cells, lying in the perivascular lymph spaces. These cells looked very much like chromatophores or the pigmented cells found in melanotic conditions of the skin. The granules were quite large, of a dark brown color, and completely filled the cells they were lying in. The glandular structures and appendages were normal. The elastic tissue did not appear to be altered.

CASE 4.—History.—The patient, Mrs. A. S., aged 38, was married and her occupation was that of ordinary housework. She emigrated from Russia to the United States nine years ago and had always lived in New York City. During eleven years of her married life she gave birth to six children, four of them alive and well; one died in infancy of "summer complaint." Her fourth pregnancy ended in the eighth month, the child living one and a half days. During this time her husband, who was a painter by trade, was suffering from plumbism. She herself had always been particularly well, except after the premature delivery about four years ago, when she had to be curetted for metrorrhagia. The onset of her skin trouble was not definite; she admitted a mild itching eruption while in her fourth pregnancy, which she said came on after eating canned salmon. The onset of the pigmented rash she dated back to about four months after the curettage. Her habits were good. Her periods were regular but she had always suffered from constipation. She denied ever taking any headache powders or any other drugs.

Physical Examination.—The patient was a brunette, of middle stature and corresponding weight and slightly neurotic; the physical and clinical examinations were gone into to the smallest detail. Nothing abnormal was noted outside of her skin eruption.

Dermatologic History.—For the past three and one-half years she was having outbreaks of an eruption on her body which left pigmentations. She had fresh attacks sometimes every two or three days. When they first appeared they were small erythematous spots which lasted only a few days and left no

traces, but very soon most of the spots remained, became purplish and persistent. With each relapse, these persistent spots always became more pigmented and were surrounded by a pink rim, but they did not increase in size.

When she first came under observation at the clinic, the eruption was located irregularly over the back, buttocks and extremities, especially the inner surface of thighs, buttocks and forearms and the backs of the hands. They were rounded and oval areas, dime to palm sized, fairly well defined and of purplish and purple brown tint. There was slight scaling in places. Her relapses were rather frequent and at such times the lesions, new and old, became raised and the edge was slightly thickened, but no urticaria was present even on rubbing. The patient complained of itching with each relapse, but no constitutional symptoms, as fever, joint pains or diarrhea. She did complain of nausea and headache before the eruption appeared.

Histopathologic Examination.—A section was taken from a fresh lesion situated on her back and stained with hematoxylin-cosin, Gram-Weigert and Perls' iron stain. The horny layer was smooth, wavy and slightly hyperkeratotic. A dyskeratosis of the cells in the granular layer and upper rete cells was noted in places. There was a parenchymatous and intercellular edema of the rete, and slight disorganization of the basal cells from edema and infiltration below. The rete pegs were enlarged. The papillary bodies were also enlarged due to an edema, and the collagen in this region was rarefied for the same reason. The elastic tissue appeared normal. The vessels were more dilated than in the other sections of this series, some of the vessels containing a few red corpuscles. The endothelium lining the vessel walls was swollen. The infiltration which was present was not quite so marked as in the other sections, but consisted also mostly of round cells, a few plasma cells and an occasional polymorphonuclear. No mast cells were seen. The infiltration was perivascular and confined to the papillary and subpapillary regions. The pigmented cells noted in sections from the other cases were also present here, but were less numerous.

Perls' stain for iron in the pigmented cells found in this section was tried, but no blue reaction occurred. This confirmed our opinion that the pigment was melanin, for according to Unna, if the pigment did not give the iron reaction it was melanin. The glandular structures and appendages were normal. No micro-organisms were noted with the Gram-Weigert stain.

CASE 5.—History.—Patient, J. T., was first seen by Dr. Howard Fox. Later she appeared at the Vanderbilt Clinic for treatment. She was 27 years old, born in Russia, and had been in the United States eleven years, always in New York City. She was married eight years and had one child, living and well, 7 years old. One year ago she had a premature delivery, the child living only two days; the cause of this was not known. The family history was negative, and there was no history of any skin disease in the family. She did not recall ever having had any illness and was always in good health. Her periods were regular.

Physical Examination.—The patient was a brunette, of average height and weight, and well built. She was not very intelligent and seemed to be somewhat neurotic. Detailed examination of her nose, mouth, throat, larynx, eyes and ears revealed nothing abnormal. Similar examination of the thorax, abdomen and extremities was also negative. Clinical examination of the urine and stools was also negative. The Wassermann test was negative. The examination of the blood showed 4,000,000 red blood corpuscles with a hemoglobin of 85 per cent. (Tallqvist's). The white cells and differential counts were normal.

Dermatologic History.—She said she had trouble with her skin for the past one and one-half years. No reliable description could be obtained from her as to how the eruption looked when it first appeared, or the manner of distribution. The relapses were quite often and were accompanied by itching.

According to her family physician, who saw her early in the last pregnancy, there were present pigmented stains on her body from previous attacks. She

was free of relapses during the pregnancy and not until six months after confinement did she complain again. At this time she took some proprietary laxative to which she attributed the outbreak. This laxative contained a small amount of phenolphthalein ($\frac{1}{2}$ to 1 grain). Five weeks ago she claimed she had another relapse immediately following the ingestion of this laxative. She denied taking any other drugs or headache powders.

Description of the Eruption.—The lesions were distributed around the mouth, over the chest, back, arms and thighs. They consisted of roughly oval and circular patches, varying in size from a quarter to a half dollar. The lesions were slightly elevated, the surfaces were smooth and free of scales and the margins somewhat thickened but ill defined. Their color was brown; some of the spots were of a red-violet tint. This latter appearance was due to the fact that she just had a relapse, and the patient said the old spots always flared up when that occurred.

Histopathologic Examination.—The section was taken from a purplish pink lesion on the skin of the postaxillary fold. Dr. Howard Fox had kindly sent the specimen to the Vanderbilt Clinic. The stains used were: hematoxylin-eosin, Weigert's elastic tissue, and Perls' stain for iron in pigment.

Excepting for considerable pigmentation, there were no notable changes in the tissue. There was a loosely laminated horny layer covering a moderately acanthotic rete. The rete pegs were somewhat increased in size and several were confluent. The rete also showed a moderate parenchymatous edema. There was very little vascular dilatation but some endothelial proliferation and hyperplasia. There was a moderate perivascular collection of round cells, mostly in the papillary and subpapillary bodies. The collagen and elastica were normal. There were many pigmented cells in the perivascular zones, irregularly pear-shaped and containing fair sized, dark brown granules which did not give a blue reaction with Perls' stain.

In addition to the case reports given, I examined a young man, about 22 years old, with a similar eruption, at the Mount Sinai Clinic in the service of Dr. A. B. Berk, about four years ago. The patient had spots scattered over his upper and lower extremities and on the buttocks, the size of a half dollar and bluish red in color. He said that these spots were present for several years, were persistent and every once in a while would flare up, becoming more red. The patient disappeared before detailed study could be made.

Stelwagon¹¹ presented a case before the Philadelphia Dermatological Society in 1913 or 1914, in which the following history was given:

A woman, aged 38, had an eruption on the arms, legs and trunk which began as small rings with elevated borders, and which enlarged by the spread of the circumference or by confluence with other lesions, reaching palm or larger in size. The duration of the outbreak was about four months. Involution occurred by the breaking up of the circumference, and pigmentation remained after the disappearance of the active lesion. She was presented as having a case of erythema multiforme perstans.

Hartzell¹² presented a case before the Philadelphia Dermatological Society at the April or May meeting, in 1916, with the following history:

The patient was a mulatto woman, aged 28. On each wrist was a perfectly round lesion about the size of a silver half dollar; very much darker than her light mulatto tint, lightly elevated and surrounded by a markedly inflammatory halo, about a quarter inch wide. Over the right scapula was another, smaller lesion which was oval in shape. Completely surrounding the mouth was a zone of dark pigmentation, about half an inch wide and which in turn was surrounded by a pinkish halo. She gave the history of having one attack three years ago; another last October, of an exactly similar nature. On her arms and back were about ten pigmented spots which were the remains of previous lesions. They

11. Stelwagon: Case Demonstration. JOUR. CUTAN. DIS., 1915, 33, p. 219.

12. Hartzell: Case Demonstration. JOUR. CUTAN. DIS., 1916, 34, p. 85.

were extremely tender to the touch and accompanied by considerable itching. He added that if the patient were white, probably the iris form of erythema multiforme would be much more noticeable.

McEwen¹³ presented a case before the Chicago Dermatological Society, April 18, 1916, with the following history:

A Jewish tailor, about 50 years of age, had his first slight attack in December, 1915. Two months later he was seen in the hospital with a very dark, bluish red eruption on the face and backs of the hands and a severe stomatitis. The disease was ushered in with chills and vomiting. Since then he had had three attacks, each one more severe than the preceding one. The eruption had the same livid color each time, leaving a deep pigmentation which had no time to clear between attacks. The last attack involved the trunk as well as the extremities, but the mouth was not severely affected, possibly because he had had all his teeth which were very bad, extracted. He presented deep brown, pigmented areas with gyrate borders, involving nearly the whole face and the backs of hands. The limbs and trunk were dotted with large, deeply pigmented macules. On the face some of the purplish congestion was still seen. This case was presented as erythema multiforme with marked pigmentation.

RÉSUMÉ AND DISCUSSION OF THE CLINICAL AND DERMATOLOGICAL HISTORIES

The five cases, the subject of this report, presented the following points of importance:

There were two men and three women, their ages varying from 19 to 32 years. Case 1 was light complected, Jewish and born in Roumania; the others were dark complected, also Jewish and of Russian birth. They were in this country a comparatively short time. Their occupations varied and seemed to have no bearing on their skin diseases. Their family histories were all negative. Their past histories were more important.

Case 1 was subject to nose bleed, headaches and constipation; Case 3 attributed his trouble to the onset of constipation; Cases 4 and 5 had each had a premature delivery; Case 2 had nothing in her past history to account for her trouble. Their habits were regular; they never took any drugs with exception of Case 5, who used a proprietary chocolate laxative containing phenolphthalein.

Their physical examinations were entirely negative. No enlargement of the liver or spleen was ever noted. Their complete blood counts were all normal; their urines showed traces of indican, but no albumin, or blood corpuscles; their stools were all negative for blood, ova and parasites; and their Wassermann tests were all negative. The gonorrheal complement fixation test in Case 1 was also negative. The Gram-Weigert stain in Case 4 revealed no organisms.

The average duration of the eruption was about three years, sometimes preceded by a fleeting itching eruption; the relapses occurred at no definite time, sometimes every two to three days, sometimes not for six months, bearing no relation to seasonal changes of tempera-

13. McEwen: Case Demonstration. *JOUR. CUTAN. DIS.*, 1917, 35, p. 107.

ture and not accompanied by arthritic pains or uneasiness except in Case 2. There was no fever. The only prodromal symptom was a slight nausea. Case 1 had also headaches and an occasional nosebleed.

The eruption itself was practically the same in all the cases, and consisted of round or oval, slightly raised spots, about the size of a silver quarter of a dollar up to palm sized, reddish blue or violet in color, sometimes scaly, and with a pink margin about one-quarter inch wide. Most of the spots remained, and the exudation soon subsided; a few smaller ones of a pinkish color disappeared in a few days. When the patient was free of relapse for six months or so, these spots became of a slate brown color. In case a relapse occurred, these pigmented patches were sure to participate in it, when they became violaceous with a surrounding pink halo and slightly elevated again. The distribution of the patches was that of the usual location for erythema multiforme. Whatever other areas were involved, there was always an eruption on the backs of the hands and occasionally on the backs of the feet. A striking tendency for the eruption to locate itself on the buttocks, near the internatal clefts, was also noted.

The case cited by Stelwagon resembled my cases, in that it was a persistent erythema multiforme which left pigmentation, but the ringed lesions were absent in my series.

Hartzell's case was a duplicate of Case 2, with the exception that the latter did not complain of any tenderness in any of the lesions. Whether these cases should be called erythema iris will be taken up in differential diagnosis.

McEwen's case had severe constitutional symptoms and the eruption seemed to be more marked; otherwise his case resembles the group here reported pretty closely.

Ehrmann¹⁴ described similar eruptions following constipation and menstrual disorders, and called them "circumscribed Erythème en plaques," classing them with the toxic and infective erythemas. No case reports were given. He attributed the pigmentation to the presence of melanoblasts, and thought that the pigmentation was more marked and persistent in brunettes than blondes, also that they occurred in regions of the skin where a certain amount of pigmentation was normal, as in the genital regions. This was also noted by the author.

RÉSUMÉ OF THE HISTOPATHOLOGY

The following table was constructed from the descriptions of the histopathology of urticaria, erythema multiforme and purpura, as given by Ehrmann and Fick.¹⁵ A few additions were made to make the table complete.

14. Ehrmann: Toxische und Infectöse Erythem, Chemischen und Microbiotischen Ursprungen. Mracek's Handbuch der Haut Krankheiten, Vienna, 1902, 1, pp. 632-658.

15. Ehrmann-Fick: Spezielle Histopathologie der Haut, Vienna, 1906, pp. 4-9.

DISTINCTIVE FEATURES IN THE DIFFERENTIAL DIAGNOSIS BETWEEN URTICARIA, ERYTHEMA EXUDATIVUM MULTIFORME, AND PURPURA

Urticaria, an edema *	<i>Erythema exudativum multiforme, a dermatitis plus edema</i>	<i>Purpura, a hemorrhage into the skin and subcutaneous tissue plus a mild inflammation</i>
Epidermis in its entirety shows an intercellular edema, of varying intensity, or even a vesicle	Epidermis — horny layer is raised, parenchymatous and interstitial edema of rete; plenty of leukocytes in intercellular spaces; whole epidermis is soaked with serum which under certain circumstances is slightly hemorrhagic	Epidermis is occasionally invaded by red corpuscles of extravasated blood
Papillary bodies thickened due to edema	Papillary bodies thickened due to edema	Papillary bodies slightly thickened
Superficial capillaries contracted	Superficial capillaries dilated.	Endarteritis; thrombus formation
Deep vessels widened, injected and filled with blood	Deep vessels dilated.....	Ruptured vessels occasionally; organisms occasionally demonstrated in thrombus
Lymphatics dilated.....	Lymphatics dilated.....	Lymphatics dilated
Collagen; thickened by an edema in and between fibers and bundles; fine striations disappear and is homogeneous in papillary body	Collagen; striations disappear due to edema. Occasional red cells or their products in collagen, which accounts for the display of color when lesions involute	Collagen; between bundles are red cells; in old lesions decomposed blood in appearance as granules (hemosiderin) or crystalline clumps and flakes
Elastic fibers spread apart...	Elastic fibers spread apart; otherwise well preserved	No change in elastic fibers
	Infiltration is perivascular and confined to papillary and subpapillary regions; consists of round cells, also polymorphonuclear and connective tissue cells; plasma cells absent	Slight perivascular and diffused round cell, polymorphonuclear and proliferating connective tissue cell infiltration, occasional plasma cell

* Gilchrist⁶ claims urticaria an acute inflammatory process with leukocytic infiltration.

The histopathology of the five cases was practically the same.

The epidermis was moderately hyperkeratotic and laminated due to an edema; no parakeratosis was present. There was a slight parenchymatous and a moderate interstitial edema of the rete; a few round cells and chromatophores were found in the basal layer. There was a slight acanthosis in some cases. The stratum lucidum was usually absent and the granular layer was normal in appearance, except in some it was absent in places. In Case 4 there was a dyskeratinization of the granular layer and upper layer of the rete cells. The papillary bodies were moderately thickened from an edema; the papillary and subpapillary vessels were moderately dilated, the lymphatics, especially the perivascular lymph spaces, were more so. The collagen and elastic fibers of the papillary bodies were usually spread apart by the edema; the collagen in the subpapillary region was thickened and the striation somewhat dimmed. No degeneration of collagen or elastin was seen. No hemorrhages were visible. The infiltration was perivascular and confined to the papillary and sub-

papillary regions, and consisted mostly of round cells and proliferating connective tissue cells; an occasional polymorphonuclear, plasma and mast cell was noted.

This places these cases in the erythema multiforme group of a mild and subacute type.

In addition, many pigmented cells were seen lying in the perivascular lymph spaces of the subpapillary region; a few also were seen in the papillary bodies and occasionally in the epidermis. Very little pigment was noted lying free in the collagen spaces. These pigmented cells were about two to three times the size of the round cell, irregularly pear-shaped and contained moderately sized, dark brown granules which did not react to Perls' stain. The cells might be called chromatophores and the pigment melanin. For, according to Unna,¹⁶ pigment found in the skin which never reacted to Perls' ferrocyanid test was melanin. Hemosiderin gave a reaction with ferrocyanid (Perls') as it contained oxid of iron.

DIAGNOSIS

There were a few dermatoses that had to be excluded, in which the eruption consisted of a macular erythema with hemorrhagic elements or pigmentations and whose clinical appearances were almost identically alike.

Brocq and Darier, quoted by Ormsby,¹⁷ had reported cases in which antipyrin had produced a more or less persistent erythema which took the form of scattered, isolated and sharply defined plaques. These plaques were few in number, accompanied by pigmentation and occurred in the same sites each time the drug was taken.

Ehrmann¹⁴ also mentioned a case in a colleague who had macular pigmented lesions on the penis and scrotum that recurred in the same place from time to time. Antipyrin internally usually produced the relapses, but not always.

That is why the patients were questioned so closely as to whether they ever took any medicine or drugs. They all denied this, with the exception of Case 5, who said that she was in the habit of taking a proprietary chocolate laxative that contained about 1 grain of phenolphthalein. She was not quite sure whether she had the eruption before she started to take this laxative. She was more certain, however, that on two different occasions a relapse followed each time this laxative was taken.

Dr. Howard Fox was of the opinion that the eruption was due to the phenolphthalein. To test this out, she was first given some chocolate, but nothing occurred; she was then given two tablets of the laxative, which amounted to 2 grains of phenolphthalein. In five minutes

16. Schmidt: *Unna's Histopathology of Diseases of the Skin*. Trans. by Norman Walker, Macmillan, 1896, p. 960.

17. Ormsby: *Diseases of the Skin*, 1911, p. 270.

she began to complain of itching, which three hours later was followed by an extensive macular erythema of the face, body and extremities as well as a purplish coloration of the old pigmented spots, that also showed halo at their margins. All the lesions showed signs of exudation; no urticaria was present. Examination of the urine for phenolphthalein and red corpuscles was negative; the stool could not be obtained. In this connection, it was interesting to note that Case 1 was lately taking from 1 to 5 grains of phenolphthalein for his constipation and since this treatment, had not had any relapse. Case 4 was given the proprietary laxative that had affected Case 5, but no symptoms occurred.

Chemically, phenolphthalein is a phenol compound and belongs to a class of bodies known as triphenyl methane dyes, to which also fuchsin, eosin and fluorescin belong. Enormous doses of phenolphthalein were given by Abel and Rowntree¹⁸ to animals intravenously and no toxic effects were noted. Hydrick¹⁹ reported albuminuria after the administration of from 1 to 2 grains of phenolphthalein to human beings which lasted from one to three days. All were agreed that the drug was excreted in the feces mainly and to a slight degree in the urine. No skin eruptions were reported anywhere.²⁰ Case 5 is evidently the first record of such an occurrence. A small amount of phenolphthalein powder was applied to the abraded skin, and also in solution percutaneously with negative results. The question whether the eruption that occurred in Cases 1, 2, 3, 4 and 5 might be an erythema multiforme iris, can be answered in the negative, as the lesions never vesicated (a common occurrence in true erythema iris), and the concentric rings described as occurring in erythema iris, were never seen at any time.²¹

A disease, known as rat bite fever,²² incident to the bite of a rat and followed, after a variable incubation period, by a single paroxysm or by regularly recurring paroxysms of chills, fever and sweats lasting a few days, required exclusion, as there also occurred in this disease a bluish red exanthem on the body, closely resembling the lesions that occurred in my cases. The negative history and the absence of the local wound with its neighboring enlarged glands at the time of relapse, easily excluded that condition.

18. Abel and Rowntree: Action of Some Phthaleins and Their Derivatives. *Jour. Phar. and Exper. Therap.*, 1909-1910, 1 p. 262.

19. Hydrick: Albuminuria Following Ingestion of Phenolphthalein. *Proc. Am. Soc. Biolog. Chem.*, 1914, p. 36.

20. Department of Therapeutics, Phenolphthalein. *Jour. Am. Med. Assn.*, March 30, 1907, 48, p. 1133. Gilbride: The Clinical Use of Phenolphthalein. *Jour. Am. Med. Assn.*, 1910, 54, p. 343.

21. Schwimmer: Ziemmsen's Handbook of Skin Diseases. New York, 1885, p. 368.

22. Crohn: Rat Bite Fever. *Arch. Int. Med.*, 1915, 15, p. 1015.

Urticaria pigmentosa (Sangster) might cause some confusion, when seen in the pigmentary stage, but the absence of mast cells microscopically and the lack of the lesions to form wheals, especially when rubbed, easily excluded that affection of the skin.

The absence of urtication also excluded that form of urticaria followed by pigmentation with absence of mast cells (*maladie pigmentée urticante* of Quinquad²³).

Purpura is usually associated with rheumatic pains, or other constitutional symptoms. The lesions usually are hemorrhagic from the start and the sections usually show hemorrhages, thrombi and ruptured vessels. Any pigment that is found is hemosiderin which reacts with Perls' stain.

TREATMENT

Of all the remedial agents tried, climatic, dietetic, physical, chemical and serologic, there was no uniformity in results. Case 2 had been free of relapses ever since she came back from a short stay in the mountains last summer. Cases 1 and 3 were subject to relapses when constipated, and laxatives, coarse vegetable diet and general hygienic measures produced relief. Case 3 also felt well in the country where he was less constipated.

Case 4 obtained very little relief from anything I did. Case 5 said she felt well as long as she did not take the proprietary laxative containing phenolphthalein.

No food sensitization tests were made, but separately, the proteids, fats and carbohydrates were excluded from their diets at different times and with no benefit at all. In fact, Case 2, while in the country, ate promiscuously, yet her relapses stopped and never recurred since (almost one year).

Locally, some benefit was obtained in removing the pigmentation by the use of a 3 per cent, chrysarobin ointment.

On the basis of the pigmentations that were left, an adrenal insufficiency was thought of. The administration of adrenalin, however, was of no benefit except at the height of the relapse, when it relieved the itching. Thyroid extract also was of no use.

SUMMARY

1. Chronic or relapsing forms of erythema multiforme followed by pigmentations are not met with unusually, with the exception of the macular variety, which is quite rare. A study of this particular form was undertaken as very little had been written on the subject.

23. Raymond: *L'Urticaire Pigmentée*. Thèse pour le Doctorat en Médecine, 1888. Quinquad: *Maladie pigmentée urticante*. *Ann. de dermat. et de syph.*, 1893, 4, Series 3, p. 859. Fox, T. Colcott: *Albutt and Rolleston, System of Medicine*, 1911, 9, pp. 227 and 250.

2. The eruptions in the five cases were identically alike; so was the case observed at the Mount Sinai Clinic and those mentioned by Ehrmann. The cases of Stelwagon, Hartzell and McEwen belong to the same group.

3. They were all relapsing, macular, exudative erythemas followed by pigmentation; the pigmentations always flare up with each relapse.

4. The study of the histopathology of the five cases classes them with the erythema multiforme group.

5. They all showed the presence of pigmented cells, more in the old spots, and less in the new ones (chromatophores or melanoblasts or macrophages).

6. The pigment did not give the iron oxid reaction to Perls' ferrocyanid test and was therefore considered melanin.

7. Constipation was the only possible cause in Cases 1 and 3. There was no definite cause ascertained in Case 2. The eating of canned salmon was considered a possible cause in Case 4. The administration of phenolphthalein to Case 5 brought on a relapse. A search for foci, wherefrom bacteria or their products might issue and be responsible for the relapses, did not meet with success.

8. Chrysarobin, 3 per cent. locally, was of slight benefit in removing the pigmentation. A simple diet with rhubarb and soda internally seemed to prevent relapses in all except Case 5. The latter seemed to be free from relapses as long as phenolphthalein was not taken.

9. Considering the direct etiologic cause in Case 5, the similarity of the eruptions in all the cases, as well as those reported due to antipyrin, they might justifiably, under the present indefinite classification, be called toxic erythemas, or drug eruptions, or dermatitis medicamentosa. The latter terms, while implying a definite etiology, take no account of clinical and microscopic appearances and for that reason were discarded for erythema multiforme.

The writer desires to express his thanks to Professor Fordyce for permission to make this study of the patients in the dermatological department of the Vanderbilt Clinic.

In addition to the references given, the following will be found of interest:

Duhring: *Cutaneous Medicine*, 1897, 2, p. 250.

Morris: *Diseases of the Skin*, 1898, p. 96.

Parker and Hazen: *Erythema Multiforme Iris During the Course of Typhoid Fever*. *Bull. Johns Hopkins Hosp.*, 1911, 22, p. 79.

Adamson: *Erythema Multiforme*. *Brit. Jour. Dermat.*, 1912, 24, p. 429.

Boerner, Jr., Fred: *A Skin Reaction to Quinin*. *Jour. Am. Med. Assn.*, 1917, 68, p. 907.



Fig. 1.—Showing persistent areas of pigmentation.

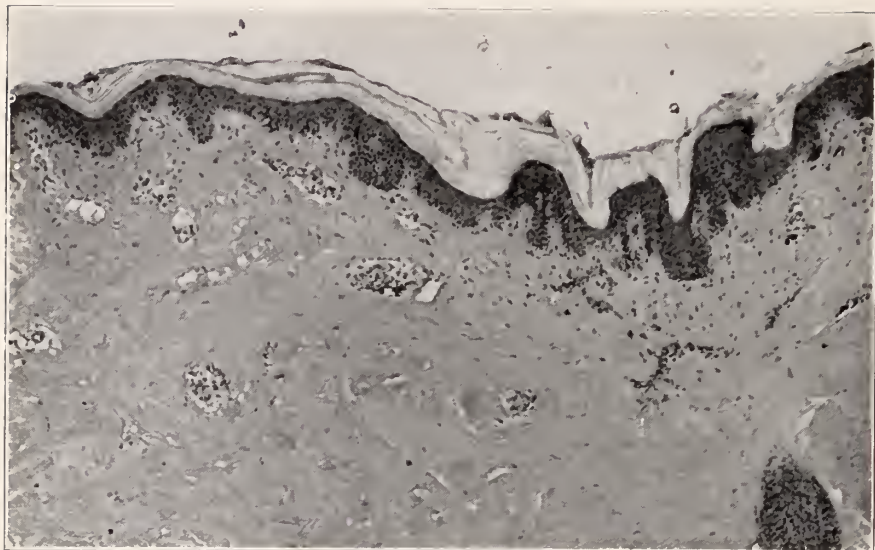


Fig. 2.—Zeiss-planar obj. 20 mm., showing thickened horny layer, dilated vessels and infiltration. Chromatophores can be seen near the vessel in the center.

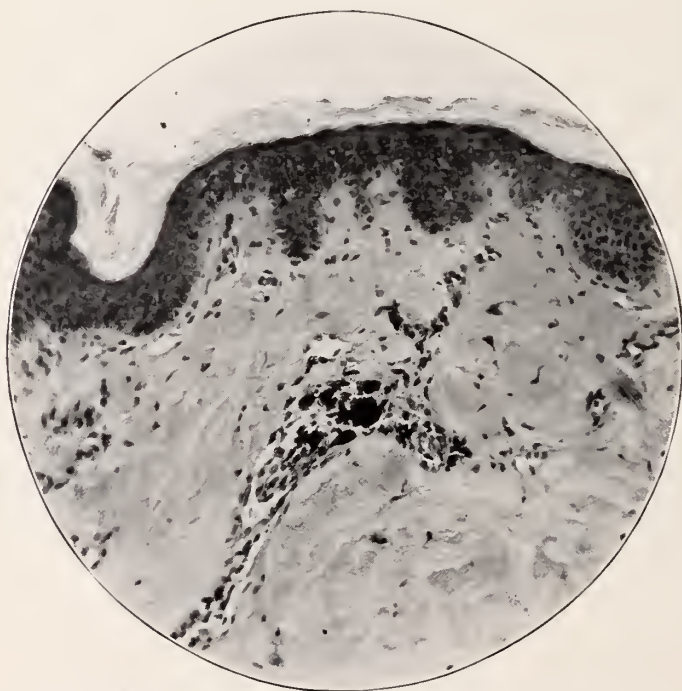


Fig. 3.—Zeiss obj. 8 mm. co. oc. 4, showing chromatophores.

SCLEREMA NEONATORUM AND SCLERODERMA *

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The discussion of this subject was suggested by the observation of a case of scleroderma in a new-born which is still of comparative rarity; on account of the difference of opinion regarding the diagnosis by a number of dermatologists who also had occasion to see the patient, which they considered to be one of sclerema neonatorum; and lastly, it appeared of great importance on account of the prognosis.

REPORT OF CASE

In October, 1915, I was requested by Dr. L. E. Frankenthal to see a baby that was born on his service in the maternity ward of the Michael Reese Hospital, and showed an affection of the skin which he considered one of scleroderma. The history of the parents was negative. The mother had previously given birth to three healthy children. The examination of the mother proved her to be in perfectly normal condition. After normal delivery at full term the infant girl weighed 4,190 gm. and was in every respect well developed. On the third day the stool was green, and a loss of 20 gm. of weight was recorded. But from the fourth day on the stool became yellow and her weight was increasing gradually. On the ninth day a bluish red discoloration on the upper part of the back was noticed, and the skin in this region was slightly raised and indurated. On the tenth day the changes became more pronounced. On the eleventh day a second spot of the same nature appeared over the left shoulder. At that time I saw the patient and the following was noted: The upper part of the back showed a mottled bluish red color. This discoloration extended from the neck down, between and over the scapulae, and just below them, and formed an irregular oval with its smaller diameter overlapping the dorsal margin of the right, covering however the whole left scapula. Its outlines were irregular, but sharply defined. The surface of the diseased skin was slightly raised, smooth, and showed numerous telangiectases. On palpation it was found to be intensely firm, boardlike and immovable. Pressure produced no pitting. A narrow rim on the periphery was slightly lighter in color and softer. Over the left shoulder was a round patch, 2 by 3 cm., its longer diameter parallel to that of the plaque on the back, with the same characteristics as the latter but separated from it by normal skin. No pain was caused in either by pressure, nor was abnormal temperature found in them. The child was quiet and behaved like any other normal infant. Two days later the plaques increased in size, that on the back appeared broader and longer, as did the one on the shoulder, and they coalesced with each other. For the following week no change had taken place, but thereafter a gradual softening and diminution of the size of the indurated skin, and fading of color took place. Within about six weeks thereafter the previously affected skin had assumed normal conditions. While the infiltration was developing, and thereafter while the absorption had been taking place, the baby was gaining in weight, and otherwise behaving normally. At no time during the observation did abnormal temperature occur. The treatment consisted in the application of a bland ointment. My diagnosis was confirmatory of that expressed by Dr. Frankenthal, to whom I feel greatly indebted for the privilege of seeing and of publishing the record of the case.

* Read before the Forty-First Annual Meeting of the American Dermatological Association, Cincinnati, May 24-26, 1917. Received for publication June 25, 1917.

Inasmuch as the case was an unusual one, several dermatologists were invited to see it, and nearly all refused to accept the diagnosis of scleroderma, but offered one of sclerema neonatorum, except one who declined to express an opinion. Not long after this case was observed, a like one was demonstrated before the Chicago Dermatological Society, and I stood alone with a diagnosis of scleroderma in this case also.

From a purely scientific standpoint it is quite necessary to clarify the diagnosis, because on this depends largely the important question of prognosis. From a perusal of the literature on the subject, it appeared to me as if the division of sclerema and scleroderma in the new-born was generally understood and accepted, but since several dermatologists did not share in this, a review of the matter is well justified.

SCLEREMA NEONATORUM

This disease was first precisely described by Dennman and Underwood,¹ and since then numerous cases are recorded in the literature under this and various other titles. There are, however, two distinct diseases to be separated under this title, namely, (1) sclerema adiposum and (2) sclerema edematosum, which separation has been accepted quite generally, since Clementowsky² and Parrot³ have called attention to and fully discussed it.

1. Sclerema adiposum, which is of far rarer occurrence than the edematous type, develops either in the first few days in weakly, premature infants with or without internal disease, or later within the first few months and then subsequent to cholera infantum, enteritis, pneumonia, etc. All parts of the body surface may become affected, except the palms, soles, scrotum and chest. The disease begins as a rule on the lower extremities and spreads or rather creeps upward. Its distribution is symmetrical. The skin becomes firm and hard, tightly drawn and firmly united with the subcutaneous and other structures; in other words, perfectly immovable. The color of this diseased skin is mostly pale, yellowish, waxy or bluish red, and feels cold, in extensive cases like a frozen corpse. The affected parts show no swelling, but are diminished in volume; the extremities are thinner and the skin seems to be glued to the bone. Active and passive motions are impeded. The pulse is slow and weak, and the respiration slow and labored. The temperature of the whole body is considerably lowered. The prognosis in those cases which begin in the first days is uniformly unfavorable. Within a few more days the disease terminates fatally.

1. Underwood: Treatise of Children, 1784.

2. Clementowsky: Oesterreichisches Jahrbuch f. Paediatric, 1873, 1, p. 1.

3. Parrot: De l'athrepsie. Le Progrès, 1874 and 1875.

In cases developing within a month or two after birth, in which the skin is affected only to a limited extent and the general condition of the patient is amenable to treatment, a better prognosis, although with reserve, can be offered. Histologically, the affected skin is found contracted, atrophic and anemic.

2. Sclerema edematosum (or scleredema or edema neonatorum) is observed mostly on the second to the fourth day, rarely later, up to two weeks, in prematurely born, weakly developed infants, and in some cases of congenital lues. The disease consists of an intensive edema which begins as a rule on the feet, calves of the legs, gradually spreading to the trunk, upper extremities, in extreme cases even to the neck and face. The skin shows at the beginning the characteristic red tint of the new-born or is cyanotic. With the increase of the edema it appears either pale or more cyanotic. Pitting on pressure stands and disappears slowly. In higher degrees of development, however, there is no pitting and the skin is firm and immovable. There is considerable increase in volume of the parts affected, which produces disfigurement and impedes motion. The skin feels cold, and bodily temperature is considerably reduced. The children are apathetic. Respiration is weak and slow, and the action of the heart is weak. The prognosis in the greater majority of cases is unfavorable. The patients die within a few days from the inception of the disease. Pathologically, the process is a common edema of the skin, the subcutaneous layer and the deeper parts. Histologically, the skin does not correspond to that of a normally developed infant, but to that of a fetus of the sixth to the eighth month.

In the preceding description I have followed the outlines as given by Jarisch⁴ and Luithlen.⁵

SCLERODERMA IN INFANTS

In the records of the older literature we find scleroderma and sclerema considered as one and the same process. The first writers to insist on a separation of the two diseases were Forget⁶ and Gillette.⁷ But later Roger⁸ and LeBreton⁹ expressed the opinion that both conditions are identical, suggesting that scleroderma (quasi as a systemic disease) retroacts in a specific manner on the general organism of the new-born and thus produces sclerema. Subsequently Hennig¹⁰ held to

4. Jarisch: *Hautkrankheiten*, 1900.

5. Luithlen: *Mraček's Handbuch*, 1904, 3.

6. Forget: *Gaz. méd. de Strasbourg*, 1847, No. 6.

7. Gillette: *Arch. gén. de méd.*, 1854, p. 657.

8. Roger: *Schmidt's Jahrbuecher*, 109, p. 205.

9. LeBreton: *Virchow u. Hirsch Jahresberichte*, 1866, 2, p. 479.

10. Hennig: *Gerhardt, Handbuch der Kinderkrankheiten*, 1877, 2, p. 151.

the same view of the identity of both, assuming that the pathologic difference was based only on the variation of structure and of vulnerability of the tissues at the different ages. But gradually the subject is becoming more clarified and a stricter separation of both processes is being generally accepted. On the other hand, true scleroderma was considered to be a disease of the adult only (therefore *scleroderma adulatorum*). In the course of time, however, sufficiently numerous cases of true scleroderma in children have been recorded. Its occurrence within the first year was also unknown, Kaposi¹¹ even going so far as to claim an immunity of that age to it. The first concrete form to this question was given by the publication of four cases of scleroderma in the new-born by Cruse,¹² in which we find a clear and detailed description. Subsequent to Cruse's cases appear those of Neumann,¹³ Langmead,¹⁴ Barker,¹⁵ and others, which also are recorded under the title scleroderma in the new-born, while we find quite a number recorded under sclerema which clearly are cases of true scleroderma. As such may be mentioned those of Money,¹⁶ Bunch,¹⁷ Blacker,¹⁸ Libman,¹⁹ Carpenter and Parkinson,²⁰ Welt-Makels,²¹ Sobel,²² Bauer,²³ Myers-Wright,²⁴ Monod,²⁵ Barrs,²⁶ Browning²⁷ and others.

SYMPTOMS

In reviewing the symptoms of scleroderma as it occurs within the early part of the first year, we find that they correspond in nearly all respects to those observed in scleroderma in the adult. The infants thus affected are well developed and are free from any internal derangement. There is normal temperature. The local symptoms appear as a rule, first on the upper part of the body (face, trunk and extremities) and consist of isolated and mostly irregularly distributed solidified plaques of various sizes and nodes. In whichever part of the

-
11. Kaposi: Virchow's Handbuch d. Spec. Pathol. u. Ther., 3, No. 2, p. 76.
 12. Cruse: St. Petersb. med. Wchnschr., No. 5, 1876; ibidem, 1876, No. 20; Jahrbuch f. Kinderheilkunde, Neue Folge, 1879, 13, p. 35.
 13. Neumann: Arch. f. Kinderh., 1898, 24, p. 24.
 14. Langmead: Tr. Roy. Soc. of Med., 5, No. 1, p. 139.
 15. Barker: Pediatrics, 1893, 10, p. 11.
 16. Money: Lancet, London, 1889, 1, p. 526.
 17. Bunch: Brit. Jour. Dermat., 1898, p. 145.
 18. Blacker: Brit. Med. Jour., 1898, p. 87.
 19. Libman: Pediatrics, 1898, 5, p. 22.
 20. Carpenter and Parkinson: London Pediat. Soc., Meeting of January, 1904
 21. Welt-Makels: Pediatrics, 1905, 17, p. 33.
 22. Sobel: Pediatrics, 1905, 22, p. 264.
 23. Bauer: Deutsch. med. Wchnschr., 1908, 1, p. 421.
 24. Myers-Wright: JOUR. CUTAN. DIS., 1909, 27, p. 87.
 25. Monod: Bull. Soc. de pédiat. de Paris, November, 1913.
 26. Barrs: Brit. Med. Jour., 1889, p. 994.
 27. Browning: JOUR. CUTAN. DIS., 1900, 18, p. 563.

body they may first appear, there is also in nearly every case a participation of the trunk, and here especially the back and gluteal regions, or either of these. The plaques and nodes show at first progression and those situated in close proximity to each other soon coalesce. The skin is firm right at the beginning of the disease. Only in one of Cruse's cases did hard nodes develop within and from an edematous skin. The skin is hard, boardlike, cannot be picked up in a fold. The surface is smooth or slightly scaly. There is no pitting on pressure, nor pain. In some plaques the skin shows no change in color, but in the majority of cases there prevails a bluish-red or brown-red. The disease may develop in the first few days or weeks, rarely months, after birth. Trauma seems to play an etiologic rôle. In Cruse's first case the infant was exposed to cold, having been thrown in a privy by its mother with homicidal intent. In a large number of cases the infants were born asphyctic, and were slapped vigorously to incite respiration, and in these, changes were as a rule first noticed in the places struck. Within a few days to months the progress ceases and the plaques grow smaller and softer. Within a short time the skin assumes a perfectly normal condition. In other words, scleroderma of infants heals spontaneously and completely. In only one case, the second one of Cruse's, did atrophy of two nodes ensue. In scleroderma of adults and older children healing takes place also in a certain number of cases, but then only if the stage of edema or infiltration has been the height of the process. Where the last stage — atrophy — has developed, no restoration to the normal will ensue. Lewin and Heller²⁸ have found that in those cases of adults in whom the disease had an acute course, healing was the rule; and with this corresponds the course of scleroderma in the infant, which usually reaches the height of development in a short time. The general health, comfort and development of these little patients is in no way influenced by the changes in the integument, and therefore in every case a good prognosis may be given.

SCLEREMA AND SCLERODERMA

Although no record of histologic examination of scleroderma of the new-born is available, and certain conditions of the skin and the age of the patients are similar in both diseases, yet the majority of the clinical symptoms of either are so pronouncedly different, that a differential diagnosis may readily be made. On the other hand, inasmuch as scleroderma occurs in children and infants which is identical with that of the adult, a separation of the latter under the designation scleroderma "adultorum" is unnecessary. In the light of the preceding review, the diagnosis scleroderma in the case above reported was well

28. Lewin and Heller: *Charité Ann.*, 1894, 19, p. 763.

founded, as was the favorable prognosis, given at the time of the first examination, well justified.

DISCUSSION

DR. HARRIS said he saw the case described by Dr. Lieberthal, which made the fourth or fifth he had seen. He made a diagnosis of sclerema neonatorum. The first case he saw began in the same way. It looked like an angioma, spread over the arms and down the posterior surface of the thighs. The patient ran a temperature of 101-105 F. for six weeks, although previous to that time was perfectly well. This condition began about a week after birth. The child nursed and grew, and a peculiar thing was that over the area involved the lesion became soft. There was a semi-fluctuating area. He opened a couple of areas and pressed out a mass of sebaceous-looking material containing lobules of oil which, under the microscope, was found composed of needle-shaped crystals.

Since then he had seen four other cases, the last one at the Cook County Hospital. This child died. He dissected out a mass of abnormal fat and also normal fat tissue. That was analyzed for him by Dr. Smith of the Illinois University. The fat tissues were similar in regard to the iodine contents. On the other hand, there was a difference in regard to the acidity. The sclerema fat was very acid. It took more sodium hydrate to neutralize it. The fat was rich in fatty acids. In the first case they had disintegration of the fat with a deposition of acids. It was a metabolic disturbance. Instead of having fat laid down in a normal way, it was laid down in the shape of fatty acid crystals. This deposition in the subcutaneous tissue accounted not only for the cyanosis but also for the distinct infiltration. It also accounted for involution of the case. He thought this case showed distinct evidence of change in this fat.

DR. LIEBERTHAL said in reply to the remarks of Dr. Harris that the finding of fatty crystals in the fat of the abnormal tissue of the infant was undoubtedly due to the fact that infantile fat consisted in the first months of two thirds of palmitin and stearin, while olein formed the rest. The latter increased gradually with advancing age, until toward the second part of the first year it amounted to about 65 per cent., as in the adult, while the amount of palmitin and stearin was reduced correspondingly. The melting point of palmitin and stearin is quite high while that of olein is low, namely, at the temperature of the body. The more palmitin and stearin fat contained the readier the same congeals, especially in pathological conditions where fatty crystals are also encountered.

ACANTHOSIS NIGRICANS FOLLOWING DECAPSULATION OF THE KIDNEYS

REPORT OF A CASE *

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The question of the pathogeny of acanthosis nigricans and the etiologic factors concerned in its causation is a complicated and obscure one. What little knowledge we have of the subject is based partly on established facts—an accumulation of repeated clinical observations—and partly on conjecture and speculation, with divers inferences drawn from our knowledge of analogous or kindred morbid processes.

The infrequency of the dermatosis and the rather exceptional circumstances attending its provocation in the case forming the subject of this report, makes it an instance worthy of record.

REPORT OF CASE

A young unmarried woman, aged 25 years, of American birth, consulted me on Dec. 29, 1915, for "itching and discoloration" of the skin of nearly the entire body. She is employed as a buyer of dress materials and works hard throughout the day. Her family history is negative and irrelevant. Excepting minor disturbances, the patient had always enjoyed good health, but is of a pronounced emotional and introspective type. She tires easily and complains of lassitude. The menstrual functions are normal. There is no evidence of tuberculosis or syphilis. Her mentality is good. She is not addicted to alcohol.

Physical examination reveals a well developed young woman, of normal stature and weight, of brunette type. The teeth, hair and nails are well preserved. The visible mucosæ are unaltered and in good condition. There are no abnormalities of the internal organs or those of special sense. The thyroid gland appears to be normal.

On March 10, 1914, after a period of prolonged mental strain, the patient, in a fit of despondency, swallowed a solution said to have contained 7.5 grains of mercuric chlorid. She was promptly attended by a physician, who thoroughly washed out her stomach, after which she was removed to a nearby hospital. The patient's case-history, obtained from this hospital, shows that during her three days' stay there, excepting that she suffered from nerve-shock, her condition was sound. Her urine was normal and not reduced in quantity. Examination of the blood revealed 6,000,000 red blood cells, 6,400 white blood cells, of which 78 per cent. were polynuclear leukocytes and 22 per cent. lymphocytes. Hemoglobin, 85 per cent. There being obviously nothing requiring hospital care, she was discharged.

* Received for publication June 4, 1917.

* Read before the Twenty-Fourth Annual Meeting of the American Dermatological Association, Cincinnati, May 24-26, 1917.

Not content with this apparently happy state of affairs, she was persuaded by her friends to seek further medical advice and finally consulted a surgeon, who counseled immediate decapsulation of the kidneys. This operation was promptly performed in an out-of-town hospital, on March 16, 1914. The case-record, a duplicate of which was obtained from this hospital, shows that the operation was an uncomplicated one, and that recovery was uneventful. During her fortnight's stay there, her urine was normal.

The patient remained in good health for about a year, until in June, 1915, a severe attack of generalized dermatitis again brought her to the hospital. From her account, one would gather that she suffered from a severe toxic erythrodermia, affecting the entire integument. The onset was sudden and the inflammation of the skin was attended by a pruritus so severe in character that, according to her story, she did not sleep for a week, despite the liberal use of opiates. She was under the care of an eminent dermatologist, whose efforts to relieve her pruritus seemed ineffectual. The acute inflammatory symptoms persisted without abatement for about two weeks, when they gradually began to subside, her skin again returning to normal condition. A few weeks later, the patient noticed that her skin had assumed a yellowish-brown tint, especially noticeable on the neck, in the armpits and groins. The discoloration increased slowly but progressively, until the entire skin, excepting that of the face and hands, shared in the process. Hand in hand with this pigmentary change, the fine lines of the skin all over the body became more distinct, the quadrillations more prominent, the palms and soles became harsh and dry, and brown warty growths made their appearance in the axillæ and groins. During this period she suffered no inconveniences, barring an occasional attack of pruritus.

PRESENT CONDITION. SKIN. The disease implicates the skin of almost the entire body, excepting the upper part of the face, the forehead and the scalp. The palms and soles exhibit a moderate degree of hyperkeratosis with an accentuation of the natural lines and furrows. The skin as a whole presents various grades of discoloration, scarcely noticeable on the hands, face and lower extremities, but quite marked on the neck and trunk, the breasts, the axillæ and the genitocrural folds. The hyperpigmentation varies from a light yellowish brown on the face, trunk and lower extremities, to a brownish-black on the neck, in the axillæ and the groins. The greater portion of the integument presents a marked exaggeration of the natural lines and furrows, together with a peculiar quadrillation or lichenification—an appearance aptly comparable to that of the bark of a tree. There is, however, no palpable thickening or induration; on the contrary, the skin has an uncommonly soft and velvety feel. There is an entire absence of scaling. The furrowing and quadrillation is disposed in a mosaic-like pattern and consists of closely adjacent parallel lines, which have a marked tendency to adapt themselves to the Langer's lines of cleavage of the skin. On the neck, this quadrillated pattern forms a wide, brownish-black, somewhat rugose band, rather well delimited at its upper and lower margins, and forming a collar which completely encircles the neck.

On the chest, back and abdomen the pigmentation is of a yellowish-brown shade, the tiny squares are very distinctly outlined and the furrows are disposed in parallel lines, conforming to the natural folds of the skin. Between the breasts these lines have a general vertical trend; on the abdomen they are horizontal and on the back and buttocks their arrangement varies, harmonizing with the physiologic cutaneous folds resulting from muscular action. The pigmentation and rugose appearance are well marked around the nipples and the umbilicus.

The axillæ and groins exhibit the most pronounced changes. At these sites there are masses of pinhead to lentil sized, closely aggregated, brown to black, soft filliform and warty excrescences, lying in parallel rows in accord with the creases of these flexures. These deeply pigmented papillary growths are quite soft to the touch and possess a peculiar velvety consistence. Their bases are

sessile here, pedunculated there, some of the little tumors attaining a length of a quarter of an inch. They resemble chorionic villi in their gross appearance. In the groins, these papillary hypertrophies are quite abundant. The axillæ and groins are devoid of hair.

On the thighs, backs of the hands and legs the dystrophy is less pronounced than elsewhere, the degree of pigmentation and amount of quadrillation being so slight as to be scarcely noticeable. The mucocutaneous borders and the visible mucosæ are unaffected.

Beside the changes described, the skin of the upper arms and back presents a number of scattered, soft, edematous, glistening papules, about the size of lentils, rather prominently raised above the surrounding skin. Their surfaces are soft, smooth and comparatively depigmented. Ordinary warts, moles, freckles, etc., are lacking.

The patient demurred against the removal of a section of skin for biopsy purposes and objected to being photographed.

From this description it is readily seen that we are dealing with the so-called benign or juvenile form of acanthosis nigricans. The case possesses all the features described in instances of this kind. The main features of the dermatosis are the papillary hypertrophy, the pigmentation, and that the most pronounced changes take place in the flexures — the sites of predilection of the disease. The absence of changes in the mucosæ and of the hair and nails, are characteristic of the benign form. That the disease was ushered in by an attack of severe dermatitis and intractable pruritus, is of great interest, but similar prodromata have been recorded by others.

A table comparing the two forms of the disease is taken from Bogrow's¹ monograph:

TWO FORMS OF ACANTHOSIS NIGRICANS

MALIGNANT FORM

1. Coexistence of serious disease of the internal organs (chiefly carcinoma).
2. Unfavorable outcome as to life.
3. Disease of short duration.
4. Intensity and widespread distribution of lesions.
5. Disease shows alterations, exacerbations and remissions, sometimes complete disappearance of external manifestations.
6. Disease develops late in life.

BENIGN FORM

1. General health undisturbed or only minor disturbances.
2. Fatal outcome never recorded.
3. Unlimited duration.
4. Lesions not very prominent and not widespread.
5. The disease remains almost stationary.
6. The disease develops in youthful patients.

BRIEF REVIEW OF RECENT LITERATURE

In view of the comprehensive recapitulation of the literature and the complete tabulation of recorded cases of the disease,² anything more than a brief reference to recent publications is out of place here.

1. Bogrow, S. L.: Beitr. z. Kenntnis der Dystrophie papillaire et pigmentaire (Acanthosis nigricans). Arch. f. Dermat. u. Syph., 1909, 94, p. 271.

2. Pollitzer, S.: Acanthosis Nigricans a Symptom of a Disorder of the Abdominal Sympathetic. The Journal Am. Med. Assn., Oct. 23, 1909, 53, p. 1369.

In his paper, Pollitzer collected fifty-two cases of the malady from the literature, briefly analyzing them with especial reference to their relation to malignant abdominal growths. Of thirty-five adult cases, in twenty-eight (80 per cent.) there were more or less positive evidences of associated abdominal carcinomatous growths — “so large a proportion that the relation of *acanthosis nigricans* to abdominal cancer must be regarded as established beyond question.”

In 1912, C. J. White³ reported a typical instance of the dermatosis, occurring in a child; in the same year Schalek⁴ reported another case and noted that sixty examples of the disease had been recorded in the literature up to that year. In 1913 Klotz and Rohdenburg⁵ published a description of a case they had presented in the preceding year, before the New York Dermatological Society. In 1915 Markley⁶ read the report of his case before the Section on Dermatology of the American Medical Association, incidentally reviewing the question of pathogeny. In the same year, Frick⁷ published a paper on the subject, incorporating in it the report of a case under his care. Frick called attention to about two dozen additional cases collected from American and foreign monographs (subsequent to the date of Pollitzer's tabulation of fifty-two cases). This article contains full references to recent publications on the subject, both here and abroad.

TWO TYPES — JUVENILE AND ADULT

The disease is, of course, a rare one. In round numbers, probably seventy authentic cases have been recorded since it was first described by Pollitzer,⁸ and coincidentally by Janovsky,⁹ in 1890, in the International Atlas for Rare Skin Diseases. Most of the cases have occurred in women between the ages 30 and 50 years. The writer has seen two instances of the disease in over twelve years' dermatologic practice in New York.

Acanthosis nigricans occurs in two forms: a juvenile, benign form, in children and adolescents who usually present no disturbance of the general health, no visceral tumors or other morbid growths, etc.; and

3. White, C. J.: A Case of *Acanthosis Nigricans*. *JOUR. CUTAN. DIS.*, April, 1912, 30, p. 179.

4. Schalek, A.: *Acanthosis Nigricans*, with Report of a Case. *JOUR. CUTAN. DIS.*, November, 1912, 30, p. 660.

5. Klotz, H. G., and Rohdenburg, G. L.: A Case of *Acanthosis Nigricans*. *JOUR. CUTAN. DIS.*, 1913, 31, p. 306.

6. Markley, A. J.: *Acanthosis Nigricans* as an Indication of Internal Malignancy. *Tr. Sect. Dermat. A. M. A.*, 1915, p. 165.

7. Frick, W.: *Acanthosis Nigricans*. Report of a Case. *N. Y. Med. Jour.*, July 31, 1915, 102, p. 232.

8. Pollitzer, S.: *Acanthosis Nigricans*. *Internat. Atlas for Rare Skin Dis.*, 1890.

9. Janovsky: *Idem*; *ibidem*.

an adult, malignant form, commonly associated with cancer of the abdominal or other organs. In the juvenile type, the dystrophies of the skin are comparatively mild in nature and moderate in extent and the dermatosis may come to a standstill and remain unchanged for a number of years. In the adult type, on the other hand, variations in the severity and extent of the cutaneous dystrophies are often encountered; sometimes the eruption may subside entirely only to reappear later. The adult cases usually succumb, within one or two years, to the associated malignant disease; in the juvenile cases the cutaneous disturbances seem to exert no marked evil effect on the victims of the disease.

PATHOGENESIS

In his recent paper and in his several discussions following the reading of case reports (Schalek and C. J. White), Pollitzer brings out practically all points of interest and importance which are assumed to have a bearing on the pathogenesis of the disease. In the large majority of cases, the striking feature is the coexistence of some serious disturbance residing in the abdominal cavity — usually a cancer involving one or more of the abdominal viscera, and especially a lesion affecting the abdominal sympathetic system. Several observers have advanced the theory that disturbances — irritations, overstimulation, etc. — of the adrenal and abdominal sympathetics, not necessarily of carcinomatous nature, but possibly in the form of benign growths, congenital malformations, peritoneal adhesions, etc., may at least partly account for the provocation of the disease in children and in adolescents. Darier¹⁰ favored this view, expressed in his “mechanico-nervous” theory of the causation of the cutaneous dystrophies — a view with which Pollitzer concurs. Intra-abdominal pressure from primary or metastatic malignant neoplasms, implicating the nerve structures of the sympathetic system and causing an interference with their normal functions, may be said to play an important part in the causation of the integumentary changes peculiar to the disease in adults.

Spietschka¹¹ published the report of a case of acanthosis nigricans, appearing in a woman afflicted with a tumor of the uterus, which later proved to be a deciduoma. Six months after a radical operation had been performed, the changes in the skin had entirely vanished. In this instance there was presumably a metastatic growth implicating the abdominal sympathetic or the adrenals, and these metastases may

10. Darier: *Dystrophie papillaire et pigmentaire*. Ann. de dermat. et de syph., 1893. *Idem*: Sur un nouveau cas de dystrophie papillaire et pigmentaire (acanthosis nigricans). Ann. de dermat. et de syph., 1895.

11. Spietschke: *Dystrophia papillaris et pigmentosa*. Arch. f. Dermat. u. Syph., 1898, 44, p. 247.

have undergone fibrous degeneration after removal of the primary tumor, thus eliminating the assumed seat of the cutaneous trouble.

That there is some relation between acanthosis nigricans and disturbances of certain internal secretions, is highly probable. Porias,¹² in 1913, wrote a paper in which the matter is discussed from that viewpoint. He believes that the cutaneous alterations result from lesions affecting the ductless glands, the secretions of which are instrumental in keeping the skin in its normal state; and that when certain derangements of these secretions take place, the results may be manifested by cutaneous dystrophies and various pigmentary changes, as occur in Addison's disease.

Among other etiologic factors which have been recorded are cancer of the breast (Kuznitzky¹³); alcoholism (Janovsky,¹⁴ Spietschka,¹⁵ Ormsby¹⁶); menstrual disturbances, amenorrhea (Spietschka); degeneration of the heart muscle (Burmeister¹⁷); exposure to intense heat (Janovsky), and to prolonged cold (Crocker¹⁸). Darier tentatively advanced the hypothesis of autointoxication, the toxin presumably being a product of the associated malignant growth—a hypothesis which is based on too little evidence to justify serious consideration. Pollitzer¹⁹ mentions two instances of the juvenile type of the disease, in one of which there was a deformity of the thorax, in the other the cutaneous changes appeared after a blow in the epigastrium.

To recapitulate: the most tenable theory with regard to the adult cases is the mechanico-nervous theory of Darier:²⁰ that the cutaneous dystrophies are secondary to derangements of the functions of the abdominal sympathetic, induced by neoplasms of the abdominal viscera and by their metastatic growth. With regard to the juvenile cases and those occurring in young adults, we must for the present content ourselves with the explanation offered by Darier and Jacquet:²¹ that in such cases the presence of congenital malformations, benign growths, peritoneal adhesions, etc., in some manner causing an interference with the functions of the abdominal sympathetic system, provokes the cutaneous phenomena peculiar to this malady.

12. Porias: Wien. klin. Rundschau, 1913, No. 38, p. 671.

13. Kuznitzky: Ein Fall von Acanthosis Nigricans. Arch. f. Dermat. u. Syph., 1896, 35.

14. Janovsky: *Loc. cit.*

15. Spietscha: *Loc. cit.*

16. Ormsby: Discussion of Markley's paper. *Loc. cit.*

17. Burmeister: Ueber einen neuen Fall von Acanthosis Nigricans. Arch. f. Dermat. u. Syph., 1899, vol. 47.

18. Crocker. Diseases of the Skin, Third Ed., 1905.

19. Pollitzer: *Loc. cit.*

20. Darier: *Loc. cit.*

21. Jacquet: Quoted by Janovsky. Mrazek's Handbuch, 3. 97.

How shall we correlate the facts and interpret the findings detailed in the history of this patient? May the changes in the skin be ascribed to the ingestion of the mercury solution, a year prior to their appearance? All things considered, such a conclusion would seem unwarranted and illogical. Are we justified in assuming, then, that the dermatosis is a manifestation directly related to disturbances or impairments of function in the abdominal cavity, in some manner provoked by the decapsulation of the kidneys? To the writer, such a view seems to be a plausible one. It readily conforms to Darier's mechanico-nervous theory, suggesting the intimate relationship between the cutaneous dystrophy and some form of stimulation or irritation of the abdominal or adrenal sympathetic system. As to the manner in which such changes have been brought about and as to the anatomic structures within the abdominal cavity which are directly or indirectly affected — these are questions which, for the present, must remain unanswered. Deductions on these points are essentially conjectural.

We may, however, safely assume one of these possibilities: That the operative procedure has resulted in changes in the circulation, affecting the functioning of the abdominal or adrenal sympathetic, or of the adrenal gland itself; or that adhesions have formed, interfering with the normal functioning of the various tissues which they may implicate; or, that exudates or proliferated fibrous tissues are exerting pressure on intra-abdominal structures which, in some manner unknown, play an important rôle in the causation of *acanthosis nigricans*.

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DISCUSSION

DR. SIGMUND POLLITZER said that the reader of this admirable paper had covered the subject so completely, both in the narration of the known facts and in the discussion of the theoretical considerations, that there was very little to be said. The case, so far as he knew, was unique in this respect: we had not a hypothetical injury to the abdominal organs, but a direct and definite injury to them by the surgical operation which preceded the development of the disease. In that respect the case was a very valuable addition to our records of this rare disease and may help to shed some light on its etiology.

DR. RAVOGLI said he had seen two cases of *acanthosis nigricans*. One was in a woman who had small, black tumors under the breast, under the armpits and she also had cancer of the liver. The second case was a woman who had small granulations or little black tumors between the toes. She had a marked diabetes, with 3 per cent. of sugar in the urine. One of these patients died, and he did not think the other would live long.

DR. SCHALEK said that these cases were so rare that it was interesting to hear another case reported. As Dr. Pollitzer has said, the essayist had covered the ground so well that there was little to be said. There were some points, however, he would like to call attention to. In the first place, was a case of *acanthosis nigricans* called juvenile because it was not malignant, even if it occurred in a person 20 years of age, or was the essayist trying to cover a different class of cases which possibly did not belong to the real class of

acanthosis nigricans? He did not believe Dr. Wise has said anything about the examination of the abdominal organs and whether there was any pathologic condition. In a case like this he should suspect a malignant growth and would look for it. Sometimes, of course, it could not be discovered in time, because it may not give any indications, but this discoloration and change in the skin may be the first sign of it.

If we considered the many theories that had been put forward as to the cause of acanthosis nigricans, it simply showed that we did not know what the disease was. If Dr. Wise saw a case of acanthosis nigricans following decapsulation of the kidneys, and implied that it was due to it, the speaker said he did not believe that could be proved. He believed it was simply another theory.

DR. WISE said that, in reply to Dr. Schalek's comments as regarded the examination of the patient, she was thoroughly examined by half a dozen internists, as he had stated in his paper, and no abdominal tumor or any lesion was discovered, and that he surmised that we will not be able to find a local etiologic factor until a postmortem was performed. The speaker thought that she will recover spontaneously, her case being of the benign type, which differed from the malignant, chiefly in the following respects: In the benign type the disease had a tendency to spontaneous recovery. The mucous membranes were not affected. There was no cachexia, and the lesions were usually more widespread and usually more persistent. In the malignant or adult form there was generally intra-abdominal cancer or there may be cancer of the breast; the lesions were more malignant and of a precocious character and the patients invariably died. Those were the chief distinguishing features of the two types of the disease.

Society Transactions

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, March 27, 1917

JAMES C. JOHNSTON, M.D., *President*

MORPHEA. PRESENTED BY DR. MACKEE FOR DR. FORDYCE

The patient, Ruth B., aged 6 years, presented lesions on the right side of the face and neck which were of ten months' duration. They consisted of depigmented, smooth, firm, flat, shiny, yellowish-white, irregularly bordered but sharply circumscribed patches. One lesion was on the right side of the neck, one at the outer canthus of the right eye, and another extended from the temple down to and joining the neck patch. The edges of the patch showed telangiectatic vessels.

SCLERODERMA (SCLERODACTYLIA TYPE). PRESENTED BY DR. HOWARD FOX

The patient, L. W., a woman, aged 48, was born in the United States. She was one of seven children. Her mother and one of her sisters had died of "lung trouble." No similar disease had ever affected any member of her family. She had suffered from various diseases of childhood, including measles, scarlatina and mumps, but with these exceptions had always enjoyed good health until a year ago, when the present affection appeared. She first noticed rheumatic pains and stiffness of the fingers, knees and left hip. It was not until about six months ago that a condition of tight skin was apparent to her. During the past six months she had also lost a large amount of hair, which had previously been fairly thick. She gave no history of attacks of Raynaud's disease. Examination showed a marked condition of hidebound skin, most pronounced on the hands and forearms. In comparison with a normal individual, it was evident that there was also a certain tightness of the skin of the arms, face, neck, chest and legs, from the ankles to the knees. The skin of the fingers and hands was unnaturally hard and exceedingly tight, interfering with movements of the joints. None of the fingers could be entirely flexed or extended, and movement of the wrist was impaired. There was considerable contracture of both little fingers. The patient appeared to be in fair general health, weighed 115 pounds, and was of medium height. She was mentally active, her pulse was not abnormally fast, and she showed no tendency to dry skin. There was a small cystic enlargement of the left lobe of the thyroid gland. Some of the fingers showed slight areas of necrosis on their tips. It was not possible to produce attacks of "dead fingers" by placing the hands in cold water or on ice.

DISCUSSION (BOTH PATIENTS)

DR. SCHWARTZ said that he had had the little girl under observation for some time, and had made a glucose tolerance test. She had a glucose tolerance of 90 gm., but he could not say if this was abnormal as he did not know the tolerance for glucose in a child of that age. She had been treated with pituitary tablets made by Rogers, and there had been a definite change in the condition of some of the lesions.

Referring to the case of sclerodactylia, he said that he had under observation a similar case with destructive lesions on the ends of the fingers, more

marked than in this case. The patient has a glucose tolerance of 250 gm., but she had been under treatment for only two weeks, so that no particular change had taken place. These cases of scleroderma and morphea had all shown distinctly decreased glucose tolerance, and it would seem that this was a constant feature of the disease.

DR. WISE said he was anxious to get the little girl under appropriate treatment, and would like to have Dr. Johnston outline the proper treatment with pituitary solution. The child was going from one clinic to another, and unless some definite relief was given her, she would probably also slip away from his care.

DR. MACKEE asked for the indications for prescribing pituitary solution and for thyroid. Were the glandular extracts administered empirically, or was there a definite indication for a single or a polyglandular extract?

DR. JOHNSTON said that he did not give thyroid at all, as he, like others, had failed entirely with it. He gave pituitary solution with thyroid, however, as an adjuvant. This use was not empirical, for it followed the ordinary indications for the exhibition. Last summer Dr. Schwartz saw a case for him of circumscribed scleroderma on the left chest of a young man, which had appeared within two months and was as big as a man's hand. In giving pituitary solution, there was a tremendous disturbance as soon as the patient reached a daily dose of six 2-grain tablets of whole gland. The onset was attributed to fatigue from overwork, which possibly had affected the pituitary gland. The dose was at first decreased, but now the patient was able to take up to ten or eleven tablets without congestive headache. The lesion was greatly reduced in size and the skin, where resolution had occurred, had almost a normal appearance. The scarring was slight.

The speaker said that he has always used Burroughs & Wellcome's preparation, for he had started with it and found it very satisfactory. The patient first treated was entirely well except for diffuse patches on the wrists and ankles; there was nothing on the body. He had not used the pituitary solution prepared at Cornell, simply because of the inconvenience to the patient. It was not on the market. So far as he had learned, there was only one indication that the dosage had reached its maximum, namely, the congestive headache that came on at 10 or 12 a. m.

DR. MACKEE asked if there were any nervous symptoms.

DR. JOHNSTON replied in the negative; so far as could be judged by the manometer, there was no increased blood pressure. So far as he knew, there was no contraindication to its employment.

DR. SCHWARTZ said that Dr. Rogers prepared two extracts of pituitary solution, one being the residue and the other the active principle of the gland. He gave the one because he expected to get very prompt results from it, and in cases in which the gland was apparently very greatly diseased, he could get effects from the residue because the gland did not have to do any chemical transformation of the nucleoprotein before it could exercise the therapeutic influence. He gave from 5 to 15 drops from four to six times a day, and did not have any increase of tension.

DR. GEORGE H. FOX, on request, told of a case which he had presented before the Society a number of years ago, which had aroused a great deal of discussion at the time. The patient's skin was darker than normal, but was apparently unchanged except that the subcutaneous tissue had disappeared, and it was a question as to whether it was a case of atrophy or scleroderma. There was, however, a hidebound condition all over the body, as if the skin had shrunk. Crocker saw the patient in London and made the diagnosis of scleroderma.

DR. HOWARD FOX expressed the opinion that the use of extracts made the treatment of scleroderma more hopeful. Dr. Johnston had had good results with pituitary extract, and Dr. Weiss had achieved a brilliant result with small

doses of thyroid extract. The speaker said that he felt as Dr. MacKee, that one ought to look for symptoms of deficiency in these glandular secretions. In his case some of the principal symptoms ascribed to thyroid deficiency were not present, including dry skin, rapid pulse, thinning of the hair, and tendency to adiposity. He asked Dr. Johnston's opinion regarding the best method of treating this case.

DR. JOHNSTON replied that the chance of improving the condition of the patient was good, but that care would have to be observed in one point which he had failed to mention. If intestinal putrefaction or fermentation was present and grave enough to produce symptoms of its own, it seemed to interfere with the therapeutic action of the organs, given by mouth. The type presented by this woman was likely to show a high grade of intestinal fermentation, and until that was improved she would probably not get much benefit from organotherapy. He would not advise giving thyroid, seeing no indication for that. If after administering pituitary solution for a reasonable length of time, the results were not satisfactory, then thyroid might be tried; but he himself had given it faithfully and had not seen any good results from it.

DR. HEIMANN asked if Dr. Johnston thought it possible to conceive of thyroid deficiency leading to a belated cretinism, localized or general. That might give a clinical picture resembling the early stage of scleroderma, and that might form the group that responded to thyroid, whereas the other would form the group responding to pituitrin therapy.

DR. JOHNSTON replied that cases occurred in which the patient showed not exactly cretinism, but hebetude, a lax, expressionless appearance of the whole countenance.

WHITE SPOT DISEASE OR LICHEN PLANUS ATROPHICUS. PRESENTED BY DR. WHITEHOUSE

The patient was a young woman, aged 19, who developed an eruption two years ago over the clavicles as white spots that were not itchy at first. Some had disappeared and new ones had developed. About six months ago, similar lesions appeared on the upper part of the back and the back of the neck. Little scales would form on top, white and shining, leaving a white spot of atrophy on resolution. The spots varied in size from pinhead to one-eighth inch in diameter. The scaling and irritation would seem to suggest lichen planus, but the location would suggest white spot disease. The speaker asked for suggestions as to therapy.

DISCUSSION

DR. WISE agreed with the diagnosis of white spot disease, and said that instances of the disease had been described in the literature in which the white spots were preceded by papules, nodules, crusts, and even by vesicles, so that this crusted appearance was not against the diagnosis as presented by Dr. Whitehouse.

DR. WINFIELD said that from the little he knew of white spot disease he would agree with that diagnosis.

DR. MACKEE said it was difficult to differentiate between white spot disease and lichen planus sclerosus in these cases. In this instance, the location, the inflammatory border and the absence of umbilication, together with the inequality in the size and shape of the lesions, would suggest the possibility of white spot disease.

DR. WHITEHOUSE said that when he first examined the case he made a diagnosis of white spot disease; lichen planus atrophicus had been suggested by others, and he had presented the case to have the diagnosis clarified and to see what could be done for the patient—whether the remedies spoken of or other therapeutic measures would avail. The patient was a young girl and had had this disfiguring condition for years, and was anxious to be relieved of it.

DR. JOHNSTON said that the therapeutic result would not be very good anyway, for the scars would remain. Dr. Sherwell had treated two cases with a paste of resorcin, with which the white spots were shelled out, but atrophic scarring remained.

•DR. WISE said that Dr. Wallhauser claimed to have treated two cases successfully with CO₂ snow.

DR. JOHNSTON said the scars from the CO₂ treatment would be worse than those of the disease. If, as some supposed, white spot disease was related to scleroderma, it might be well to see if the former showed any pituitary lack. Probably the result would be a better looking neck than without pituitary solution.

EXTENSIVE LUPUS VULGARIS. PRESENTED BY DR. HOWARD FOX

The patient, Martha J., was first shown before the Society in May, 1916. She was presented again to show the results on the face of treatment by high-frequency cauterization. Large elevated masses had been entirely flattened with a fairly good cosmetic result. Sparks of a one-quarter inch from a metal electrode were used, without a local anesthetic. In order to destroy the lesions, it had been necessary to cauterize their surface at least twice.

DISCUSSION

DR. MACKEE said the result was excellent. Probably Dr. Fox would find the fulguration method more efficacious in hypertrophic than in atrophic lupus, although in the latter cases the application could be made to the apple-jelly nodules, but there would not be so quick a result and the applications would have to be made more frequently. He thought that the lesions on the leg of this patient would be more difficult to treat, and that they would not disappear so rapidly as in the hypertrophic type. Fulguration treatment had been much neglected. It was a painful treatment and the patients did not like it unless they had some encouragement, but if used properly many cases could be cured. It was difficult to overcome the pain; cocaine will not do it. The patients suffered almost as much with it as without it.

DR. HOWARD FOX agreed with Dr. MacKee that the high frequency cauterization was a valuable method of treatment in a number of skin diseases and was not used as frequently as it should be. Dr. Fox had been experimenting during the past year with three destructive agents—the high-frequency cauterization, radium, and the galvanocautery. He had compared the effects in various keratotic conditions, including Darier's disease, tuberculosis of the skin, and ordinary warts. He felt that the high-frequency cauterization was a much more valuable agent than the galvanocautery. He would report his results with radium later.

CASE FOR DIAGNOSIS. PRESENTED BY DR. WINFIELD

The patient, a young man, aged 29, was born in Germany. He was a worker in brass, engaged in making chandeliers. Five years ago he noticed a patch on the right thigh, which was hard, slightly scaly and very itchy. This was followed by similar patches, and they increased in size and number until nearly the whole body was covered. When first seen, last May, his skin was thickened, slightly scaly, of a bright red color and was slightly itchy. He was under observation for a month, and was then lost sight of and did not reappear until recently. No positive diagnosis had been made, although several conditions were considered—parapsoriasis or possibly a premycotic condition. He had been working in the brass factory for six years; whether or not that played any part in the condition could not be stated. The young man seemed to be in perfect health otherwise; his digestion was good and his bowels regular.

The speaker said that he also had under observation another case, almost similar, but had not been able to help the patient very much. In this instance.

the man was 55 years of age, a broker, and a man of magnificent physique and perfect health otherwise. He was first seen last summer, and at first it was thought to be a case of mycosis fungoides. This patient, before the Society, suffered from itching, but it was easily controlled; no atrophy had been observed. There were patches of infiltration. The older man had had his trouble for years; it did not get any worse, nor did it get well.

DISCUSSION

DR. WISE said the only diagnosis he could think of as applicable to the exanthem would be mycosis fungoides. A microscopic section would, in all probability, clear up any doubts as to the true nature of the lesions.

DR. KINGSBURY said that mycosis fungoides should be excluded before making a positive diagnosis. The first thing to be determined was whether the patient had itching. If so, mycosis fungoides could not be excluded. Many points that at first seemed atrophic were scaly, and yet other points on pressure seemed to be atrophic.

DR. GEORGE H. FOX said that the general appearance of the eruption and the fact that a similar condition of the skin was often seen preceding the tumor state of mycosis, and often existing with the tumors, would indicate that in the course of time the case will turn out to be mycosis fungoides.

DR. WILLIAMS thought it was a premycotic condition.

DR. HEIMANN said there were several things to be considered: (1) the early stage of mycosis; (2) leukemia in its quiescent stage, and (3) erythroderma exfoliativa of the Wilson-Brocq type, with fine scaling. The last should be seriously considered, for the man had had the condition for five years and it had not progressed as it would have done had it been anything else except perhaps mycosis. The itching ruled out the parapsoriasis group. All in all, it might be any one of the three conditions mentioned. Dr. Winfield would probably have to wait and watch developments before being able to reach any rational conclusion.

DR. MACKEE said that the eruption had been present for five years, during which time not a single lesion has undergone involution. The patient complained of occasional, not constant, itching. On these grounds, he favored a diagnosis of parapsoriasis in plaques.

DR. WINFIELD said that when he first saw the patient he thought the condition was premycotic. Later, the diagnosis was changed to parapsoriasis, which seemed to be the more likely at the time of presentation. The other patient of whom he had spoken had almost exactly the same condition, only the patches were smaller, and that was undoubtedly a case of parapsoriasis.

DR. JOHNSTON told of three cases he had seen in Edinburgh, in 1898. They were pronounced parakeratosis variegata (parapsoriasis) without an instant's hesitation. In the course of time, every one of them developed the tumors of mycosis fungoides.

DR. WINFIELD said that a patient had been shown here a few years ago as a case of parapsoriasis, and a few years later some one else presented the same patient as a full-fledged case of mycosis fungoides.

LUPUS ERYTHEMATOSUS AND EPITHELIOMA OF THE LIP. PRESENTED BY DR. SCHWARTZ

The patient was a male adult. The lupus erythematosus of the face and lips was of fifteen years' duration, but the complication on the lip was somewhat unusual. The diagnosis of epithelioma had been confirmed by biopsy.

DISCUSSION

DR. G. H. FOX had treated this patient some years ago, using curettage on one cheek and liquid air on the other. He had always been deeply impressed by a remark the late Dr. Allen used to make about curettage, namely, to always

begin from the outside healthy skin and scrape inward, otherwise the inflammation caused was apt to spread the disease. The speaker said he could corroborate that advice. In that way, the lesion was destroyed and a smooth scar was left, the result being much better than when liquid air or CO₂ snow was employed.

Dr. MacKEE said that he had noted a large area of atrophy, the remains of the lupus erythematosus, which had been clinically cured as a result of the radium application. Radium, he said, was very efficacious in the treatment of lupus erythematosus of the discoid type. In this case, the epithelioma was also being markedly benefited by the treatment. He was under the impression that not more than ten or fifteen cases of lupus erythematosus had been reported, associated with epithelioma.

Dr. WINFIELD said that the case presented a very interesting combination which he had not seen before.

SUPERFICIAL LUPUS VULGARIS OF SERPIGINOUS TYPE. PRESENTED BY DR. HOWARD FOX

The patient, Mrs. L., had been presented at the last meeting. Dr. Heimann had reported on the histologic section as follows: "The epidermis shows no change of importance. The cutis contains an infiltration made up of tubercles, showing a structure characteristic of either tuberculosis or syphilis. The latter diagnosis may be excluded by the absence of changes in the vessels indicative of this disease, absence of lepra cells and bacilli, absence of polymorphonuclear leukocytes. No tubercle bacilli were found. Diagnosis by exclusion: tuberculous cutis."

DISCUSSION

Dr. HEIMANN said that on the same day that he received the specimen from Dr. Fox, he received another specimen from Dr. Clark, taken from the leukemic patient shown at the last meeting. Dr. Fox's case was tuberculosis microscopically, and the leukemia case looked even more so. That showed how difficult it was to make a hard and fast diagnosis of these things, and he was beginning to feel very much confused in his standards regarding the diagnosis of the inflammatory and the noninflammatory granulomata.

Dr. HOWARD FOX asked if Dr. Heimann's diagnosis of his case was tuberculosis; to which Dr. Heimann replied in the affirmative.

UNUSUAL FORM OF SYPHILIS. PRESENTED BY DR. SCHWARTZ

The patient, Margaret M., aged 44, was married and was first seen March 5, 1917. The patient's sister and daughter both suffered with goiter. Nineteen years ago, the patient had a palmar eruption and sores at the corner of the mouth; the husband was also ill at that time. The patient was treated for a period of six months with internal medication. Later, she learned that both she and her husband were suffering with syphilis. She stated that she had always felt nervous and weak since that time. She had had indigestion for several years. She drank six cups of coffee and two cups of tea daily; slept well; bowels were always regular; appetite was good. She had three children and one miscarriage.

Twelve years ago the patient first noticed a swelling of the right side of the neck. This swelling increased fairly rapidly for four years, and for the past eight years has been increasing in size very gradually. One year ago, the left side started to swell. She suffered with nervousness and weakness, and had occasional choking sensations. Patient was fairly well nourished; she weighed 131½ pounds. There was a swelling of the right lobe of the thyroid to a diameter of about 3 inches; the skin over the swelling was very tense. In the midline and extending to the left, there was another swelling of about 1 inch in diameter. The consistence of the swelling on the right side was that

which one found in the usual Graves' disease; on the left side the tumor was firmer. The circumference of the neck was $14\frac{1}{2}$ inches.

Heart: rate, 128; force, slight; poor muscular sound; faint systolic murmur at apex, not transmitted. There was distinct tremor of hands and head. Urinalysis was negative. The Wassermann reaction was + + + +. Treatment: hydrargyri bichlor., $\frac{1}{16}$ grain; potassium iodid, 10 grains; t. i. d., p. c.

March 12, 1917, one week following the foregoing treatment the patient said she felt very much stronger. March 19, 1917, the pulse rate was 99. The patient felt stronger and was able to do her washing, which she had been unable to do for several months. The circumference of the neck was $13\frac{3}{4}$ inches. The skin over the tumor was much looser. March 26, 1917, the pulse rate was 120 (patient was excited by the serious illness of a member of the family). The circumference of the neck was $13\frac{3}{8}$ inches.

DISCUSSION

DR. HEIMANN said he was inclined to group all symptoms existing in one individual as due to one underlying cause. The rapid response to antispecific treatment would seem to indicate that syphilis was the cause of the enlarged thyroid. He suggested that the treatment be carried out without iodids.

DR. JOHNSTON said that palpation of the neck would lead to the suspicion that the affection of the thyroid was syphilitic. The growth was hard and nodular, not like that of the cystic variety.

DR. WHITEHOUSE agreed with the point made by Dr. Johnston, that the lobulated character of the growth was not that of goiter. As Dr. Heimann had said, one form of syphilis of the thyroid conformed with these conditions, and that, connected with the distinct improvement, would seem to be sufficient evidence that the whole process was syphilitic. He agreed with Dr. Johnston's conception of the case.

DR. WINFIELD said that he had recently seen a case of gumma of the thyroid which presented many of the features of Dr. Schwartz' case. The treatment was iodid of potassium and mercury, but the recovery was not so rapid as in this case.

DR. SCHWARTZ said he recognized the fact that the patient might have syphilis and goiter as well, and they were not convinced that it was syphilis of the thyroid until the patient experienced the marked improvement under mixed treatment, the marked diminution in the size of the thyroid and improvement in the general health, the slowing of the pulse, etc. If this was the case of thyroid disease in a syphilitic, it was clearly a case of hyperthyroidism, as shown by the marked tachycardia, tremor, etc. In such cases, the iodid would rather have aggravated the symptoms than have improved them. In consequence, he thought the diagnosis of syphilis of the thyroid was justifiable.

DR. WINFIELD said his case had not improved on thyroid, but had improved under mixed treatment.

CASE FOR DIAGNOSIS. PRESENTED BY DR. WHITEHOUSE

The patient was a man, aged 45. Fifteen years ago he had a right cervical adenitis, which resolved without operation or breaking down. Six months ago he was cut with a razor on the left cheek, while shaving. It did not heal, and a "pimple" formed which was pricked and squeezed. The lesion enlarged and was opened by a physician, but there was no pus. The lesion consisted of a circular raised plaque, an inch in diameter, pultaceous in consistence, perfectly smooth, of the so-called "apple-jelly" color, with telangiectasia coursing over it. It was situated at the line of the lower jaw. There were no subjective symptoms. The patient denied syphilis, but his wife had had three miscarriages at five, six, and seven months.

DISCUSSION

DR. WISE thought that the lesion was either syphilitic in character or was a "button" epithelioma—the latter diagnosis being based on the size, age, hardness, etc., of the tumor, and on the presence of telangiectases at its lower border.

DR. GEORGE H. FOX said that the patch might be epithelioma or tuberculosis, but it looked very much like many cases that he had seen disappear quickly under potassium iodid.

DR. WILLIAMS said that the lesion appeared to him to be tuberculous, but he would not call it lupus. He had seen several cases in the last few years presenting a similar appearance and proved by biopsy to be tuberculous. They were dull red, slightly scaly, chronic inflammatory processes, sometimes without distinct nodules, seldom ulcerating except very superficially, very sharply outlined.

DR. JOHNSTON said that Dr. Williams' suggestion, tuberculosis, seemed to be a more reasonable supposition than syphilis.

DR. MACKEE said that he felt very much about the case as Dr. Williams did. It had impressed him as tuberculous on account of the nodules embedded in the mass, and the waxy or semitranslucent consistency of the tissue. The rate of growth was rather rapid for tuberculosis. Before making a diagnosis it would be necessary to rule out syphilis. Tentatively, however, he favored a diagnosis of tuberculosis.

DR. WHITEHOUSE said that he was glad to have these expressions of opinion in regard to the condition. His own first impression was of possible tuberculosis, and that was why he wanted a biopsy. Now, he would make further investigations to exclude syphilis. The color by daylight and the entire character of the condition had impressed him as being tuberculous. A suggestion had been made as to the possibility of the condition being due to the teeth. Some time ago, he had had under observation a somewhat similar lesion which had not broken down and which he had felt sure was a scrofuloderma. A roentgenogram of the lower jaw was taken, and trouble was found in the alveolar process which caused a low grade inflammation extending to the cheeks, which had not discharged, but had kept up this curious granulomatous enlargement. It had a pultaceous character, very much like the present case. The speaker said he had not taken the Wassermann test, but would do so and make a therapeutic test.

PURPURA ANNULARIS TELANGIECTODES. PRESENTED BY DR. MACKEE FOR DR. FORDYCE

The patient, F. M., was a laborer, aged 64. There was a history of penile chancre thirty years ago, but no history of later manifestations of syphilis. The patient claimed that for the past twenty or thirty years there had been repeated attacks of red spots and rings on his legs. When presented before the Society, there was an eruption on the legs, thighs and buttocks, which consisted of grouped hemorrhagic or telangiectatic puncta. These groups ranged in size from a lentil to a dime, and contained from a half dozen to a hundred individual elements. The groups were rather sparsely distributed over the legs. There were a few circinate lesions which were most marked on the buttocks and thighs. They ranged in size from a dime to a silver dollar. The margin was composed of the red puncta while the center was a yellowish-brown color. Here and there, over the legs, could be seen yellowish stains, the remains of previous lesions. There was no distinct atrophy. There were no varicose veins, nor eczema. The result of the Wassermann reaction had not been ascertained when the patient was presented. The main histologic changes in the tissue studied was a numerical increase of the vessels, a moderate round cell focal infiltration, a thickening of the vascular walls and the pigmentary remains of hemorrhage. There was no degeneration.

DISCUSSION

DR. HEIMANN said that clinically the case agreed with his conception of Majocchi's disease. Recently Dr. Rosen had brought a specimen of tissue to the Vanderbilt Clinic which he said was purpura annularis, and microscopically it looked so. The other day, Dr. Goldenberg had sent a specimen and it looked like purpura annularis, yet on examining both cases clinically they did not look like the speaker's conception of purpura annularis. Nevertheless, the microscopic picture of these two cases and others that he had seen, all looked alike. The speaker said he could conceive of a vascular disturbance due to inflammation of the vessel wall; though clinically they might assume different appearances, they might look alike microscopically. In connection with this, Stokes published a paper on syphilitic telangiectasia of the skin, and they looked enough like these to make one think that all were generically alike, although clinically they were not.

DR. MACKEE said that it was not always easy to make a diagnosis of purpura annularis telangiectodes. In well-marked examples of the disease there was no difficulty in arriving at a conclusion, but in borderline cases, justifiable confusion was likely to occur. Grouped puncta and annular lesions might occur in ordinary purpura, but the evolution and involution would be very short. Hemorrhagic and telangiectatic puncta, discrete and confluent with annular lesions, might occur in association or secondary to varicose veins and chronic eczema of the legs. Here, the history of repeated attacks with long periods of quiescence, and the fact that the condition was distinctly secondary to a varicose eczema, would allow of clinical differentiation. Histologically these borderline cases might show many of the changes found in Majocchi's purpura; although in a well-marked example of purpura annularis telangiectodes, if tissue were obtained from lesions in different stages of evolution one would encounter a histologic picture that was fairly distinctive.

In reply to a question from Dr. Fox, the speaker said that the disease was not essentially a purpura but a telangiectasia, and for this reason Majocchi had suggested the name of telangiectasia follicularis annulata.

DERMATITIS HERPETIFORMIS. PRESENTED BY DR. WISE FOR DR. FORDYCE

The patient, Ellis K., a chauffeur, aged 36, was born in the United States. The lesions were located on the back, arms and legs, and were of seven years' duration. In the locations named, were a large number of grouped papular, urticarial and vesicular lesions, associated with more or less scaling and pigmentation. On each buttock was a batwing shaped area of yellowish pigmentation. There were vesicles on the face and scalp. The disease had come and gone for the past seven years. The cutaneous food inoculation tests were to be performed on this patient by Dr. Schwartz.

NEVUS LINEARIS VERRUCOSUS. PRESENTED BY DR. WISE FOR DR. FORDYCE

The patient, Edward S., aged 26, was born in the United States. The duration of the disease was twenty years, the lesions being on the left thigh, in the femoral region, on the scrotum and perineum. They were said to have started at the age of 8 years. The inner side of the left thigh was affected, beginning half an inch below the cruroscrotal fold, extending 6 inches directly downward in a horizontal fashion, the upper part being pear-shaped, about three-fourths inch wide, and slowly tapering down to the size of a lead pencil. The upper portion contained a comparatively unaffected central portion, forming a little eccentric island within it. The lower portion was composed of three roughly oval lesions with raised borders and normal interiors. The borders were distinctly verrucous, while the interior was absolutely unchanged. In the popliteal space was a lesion three-quarters by half an inch in size, somewhat

circinate, with a clear center and verrucous border. On the right side of the scrotum, on the posterior surface, was a verrucous patch, the size of a five cent piece, composed of four or five flat warts. On the right thigh was a flat, warty patch, the size of a dime, and adjacent to the cruro-scrotal angle. The entire lesion was verrucous.

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meeting, Jan. 12, 1917

FRED WISE, M.D., *Chairman*

CHANCER OF NOSE. PRESENTED BY DR. KINGSBURY

The patient was an adult woman, who showed an initial lesion of the columella of the nose. She had enlarged glands and a macular eruption over the chest and abdomen.

SYPHILIS OF THE MOUTH. PRESENTED BY DRS. MACKEE AND ROSEN

The patient was a man aged 53, watchman by occupation, and came from Dr. Fordyce's clinic. The duration of the lesion was nine months. The past history was negative. He showed a verrucous lesion of the commissure of the mouth, involving both the skin and the mucous membrane of the cheek. The Wassermann reaction was + + + +.

BENIGN CYSTIC EPITHELIOMA. PRESENTED BY DRS. MACKEE AND WISE

The patient was a woman, aged 24, from Dr. Fordyce's clinic. The duration of her eruption was fifteen years. It was limited to the lower eyelids and adjacent portions of the cheek and consisted of pin-head to split-pea sized, opaque, firm papules, possessing the color of normal skin. The histopathology was that of benign cystic epithelioma.

DISCUSSION

DR. MACKEE, in reply to an inquiry regarding treatment, said that the roentgen ray, radium, solid carbon dioxid and trichloroacetic acid all gave good results in these lesions.

XEROSIS ASSOCIATED WITH EXTENSIVE KERATOSIS PILARIS.

PRESENTED BY DRS. MACKEE AND WISE

The patient was a boy, aged 12 years, and the history was of one week's duration, but the speaker said that in all probability this was erroneous. The patient, who was from Dr. Fordyce's clinic, showed a follicular condition all over the body, resembling keratosis pilaris and if one looked at the case closely there was a generalized xerosis. The speaker did not know exactly what to call the case, but there was a possibility of its being one of those types described by Macleod as ichthyosis follicularis. This case did not conform in all particulars to the three presented by Macleod and was probably a very extensive keratosis pilaris and a xerosis.

DISCUSSION

DR. MACKEE said that while he made a tentative diagnosis of ichthyosis follicularis, it did not seem to conform with the three cases presented by Macleod. His three cases were absolutely congenital, in one family, with total baldness, and no hair on any part of the body. This was simply a widespread keratosis pilaris and one of the congenital keratodermata. It was often associated with ichthyosis and in this case was associated with xerosis. The roentgen ray

would remove the lesions for the time being, but they would return and even long continued treatment would not produce a permanent cure.

TUBERCULOSIS CUTIS AND SYPHILIS. PRESENTED BY DR. PAROUNAGIAN

The patient was a man, aged 33, an Armenian. His family history revealed that his father was living and his mother was dead, and that she had had a cough and was sick for a long period. His personal history was negative and venereal infection was denied. He was first seen by the speaker in August, 1915, and then had a number of lesions on the neck, above and below the clavicle, on the sternum, in both axillæ and the right leg, extending from the knee to the ankle. There were some active lesions, but mostly pigmented and depigmented scars. He stated that the condition began about five years previously and that he had two salvarsan injections without any benefit. His Wassermann reaction in August, 1915, was negative. The condition for which he was presented was a lesion on the tip of the nose, which appeared about five weeks ago. As the process was progressing rather rapidly, syphilis was suspected and a Wassermann examination made, the result of which was +++.

A biopsy made from the leg lesion, subsequent to the presentation, showed a distinct tuberculous structure.

DISCUSSION

DR. GOTTHEIL thought the entire condition syphilis, with a syphilitic adenitis and also the scars in the axillæ. He showed a photograph to the Society of a syphilitic adenitis like the case presented.

DR. OCHS said he agreed with Dr. Gottheil and thought the case was syphilis and that the man had had insufficient treatment. He thought that if he had more treatment the whole thing would clear up.

DR. OULMANN said that scrofuloderma, showing such extensive processes, as in this case, was seen only in children. If one could think of anything of a tuberculous nature on the legs, it would be Bazin's disease, but the inflammatory process was entirely missing. He thought the process was syphilis.

DR. MACKEE agreed with Dr. Gottheil. One could not be certain about the trunk lesions as there was nothing there to judge by, excepting the scars, but he thought the entire process was specific.

DR. WISE said it was his impression that the scars on the legs were the result of tuberculous disease, but the rest of the lesions were syphilitic.

DR. GOTTHEIL thought that a three and one-half and four plus Wassermann reaction seemed an unnecessary refinement. The best men said markedly positive or slightly positive and the condition of subdividing reactions was perfectly useless.

DR. PAROUNAGIAN said that he regretted that he was alone in his diagnosis of tuberculosis and syphilis existing in the patient. However, he still believed that the nose condition was syphilitic and the lesions on the lower extremity, and the glands of the neck and axillæ were of tuberculous origin. The slow course of the disease, not yielding to salvarsan, was rather against the diagnosis of the whole thing being a syphilitic process. He was going to administer several salvarsan and mercury injections and present the patient at a later date.

MORPHEA. PRESENTED BY DR. PAROUNAGIAN

The patient was a woman, aged 32, born in Hungary, who presented two lesions of morphea, one on the forehead and the other on the chest. The forehead lesion involved the scalp as a wide band of hide-bound skin with alopecia. The speaker showed the case because he wanted her seen by the Society before he followed the plan of treatment in Dr. Weiss' case. The lesion on the chest was just below the sternum. The case would be presented again to show the result of treatment.

DISCUSSION

DR. WEISS, in reference to thyroid medication in this case, remarked that he more than hoped that this patient would be benefited by thyroid treatment, because she exhibited signs of hypothyroidism or rather symptoms of thyroid instability. She had premature grayness, caloric disturbances, such as cold extremities, chilliness, especially after meals, hypersensitiveness to cold. Her skin was dry and scaly, she suffered from painful menses, felt constantly tired, etc. In these cases of thyroid deficiency only did thyroid treatment do well, and this explained why some cases of psoriasis, morphea or infantile eczemas were cured and others were not. Only by substitution therapy could they expect results. Psoriasis had a multiplex etiology and it seemed as if this affection would be a thyroidotropone, that is, in close connection with the physiology and pathology of the gland. Thyroid extract did not cure all patients affected with these dermatoses, unless they exhibited symptoms of thyroid insufficiency. In some cases a slight thyroid instability was associated with a concomitant hyperthyroidism or with other endocritic symptoms. The study of such cases was a very difficult one, but fraught with great possibilities for good.

NEVUS UNIUS LATERIS. PRESENTED BY DR. PAROUNAGIAN

The patient was a small boy, aged 11 years, born in the United States. He had had the condition since birth. There was a linear, verrucous lesion which was located on the right side of the body, beginning on the neck, and involving the axillæ, the back, the dorsal surface of the hand and flexor surface of the elbow.

TINEA CIRCINATA OF UNUSUAL LOCATION. PRESENTED BY DR. PAROUNAGIAN

The patient was a little girl aged 8 years, born in the United States. The duration of the condition was about a week. The lesions were circinate and scaly, some round, and others oval in shape and slightly itchy. They were located about the neck, axillæ, inguinal and popliteal regions. The scalp was free from seborrhea, and as the speaker saw the case only a few minutes at the Gouverneur Dispensary, no microscopic examination was made, although a specimen was obtained. The case was such that clinically it could be diagnosed as a seborrheic eczema or ringworm.

Microscopic examination revealed tinea.

DISCUSSION

DR. WISE said that Sutton showed an illustration of a case of seborrheic eczema, which resembled very much the one presented.

LABIAL CHANCRE. PRESENTED BY DR. PAROUNAGIAN

The patient was a man, aged 23, born in the United States, a plumber by occupation. The history was very vague. He presented a large, indurated sore, quite infiltrated and circular in shape. It was located on the lower lip, near the right angle of the mouth. He claimed that about Dec. 11, 1916, he was bitten by a woman and shortly after that, the lesion developed. The patient was referred by his physician for treatment. His Wassermann reaction was + + + +. He had extensive adenopathy but no roseola. He had received two injections of salvarsan in five days, and as a result of the same, the lesion was much smaller than when first seen, which was six days before being presented.

LICHEN PLANUS BENEFITED BY SALVARSAN. PRESENTED BY DRs. MACKEE AND ROSEN

The patient, Florence N., aged 30 years, was born in New York City, and came from Dr. Fordyce's clinic. She presented a generalized eruption, consisting of lichen planus papules. The lesions on the forearms were small,

conical and capped with a fine scale, resembling lichen ruber acuminatus. Some of the lesions were arranged in linear bands. On the thighs, abdomen and lower extremities some of the lesions were arranged in mosaic-like figures, others again were beginning to be hypertrophic. The color was violaceous. The patient was given salvarsan intravenously up to the time of presentation. She had had two injections of 0.3 gm. each. The improvement was very marked.

DISCUSSION

DR. MACKEE regarded the case as one of lichen planus with involvement of the hair follicles. Under the microscope it showed lichen planus and he did not think it was lichen ruber acuminatus. This follicular involvement had been described by Dr. Fordyce a number of years ago.

DR. WISE said that the occasional co-existence of lichen planus and lichen ruber acuminatus were mentioned by Unna and by Rothe. In the case presented, the follicular keratotic lesions on the forearms certainly did not resemble lesions of lichen planus, but rather those of Dévérgies' disease.

DR. MACKEE said the histology of the lesion was certainly that of lichen planus. When serial sections were followed the lichen infiltration was seen to leave the hair follicle and spread out under the epidermis just as in ordinary lichen planus. Lichen planus very rarely involved the hair follicles, but in this case it did.

DR. ROSEN said the patient had received two injections of salvarsan intravenously, which improved the eruption considerably. She was going to receive another injection the next Monday.

DR. WISE said he could attest to the great improvement from one injection of salvarsan.

DR. ROSEN said this case compared with one of very extensive lichen planus at the Mount Sinai Hospital, in which there had been wonderful improvement under salicylate of mercury injections.

GENERALIZED PAPULO-NECROTIC TUBERCULID AND ERYTHEMA INDURATUM BAZIN. PRESENTED BY DRs. MACKEE AND ROSEN

The patient, E. R., aged 19, was born in Russia, and presented herself at Dr. Fordyce's clinic with the following history: For the past six years the generalized eruption had existed, new lesions coming, healing and leaving scars. The lesions varied in size from that of a split pea to that of a small bean. They might be seen in all stages of development. Many of them were covered with depressed crusts. Scattered over the entire body were numerous depressed scars. On the lower extremities the lesions were of a different character, large, infiltrated nodules, typical of erythema induratum (Bazin).

HYPERTRICHOSIS. PRESENTED BY DR. GEYSER

The patients were two adult women. The speaker expressed the opinion that coarse hairs were very much more permanently, easily and quickly removed than fine ones. One of the patients grew a fine, downy hair all over the face, to one-half inch in length, which made her life miserable and unbearable. She had had treatment with the galvanic needle without any result. The other patient's hair had been gone for nine weeks and the only recurrence had been a few hairs on the upper lip and margin of the neck, where the tube did not strike the face. The first patient started to use pumice-stone, but the more it was used, the more the hair would grow. She then used the electric needle, but this treatment was too expensive. After this she used some depilatories and then tried to depilate the hairs herself, using a galvanic battery, which did not do the work. She came, on October 1, to see the speaker, and on November 9, the entire face had been cleared.

DISCUSSION

DR. WALLHAUSER congratulated Dr. Geysler on the very good results and asked if this method could possibly produce permanent results.

DR. MACKEE said that he would have to see the cases at the end of a year before he could conscientiously congratulate Dr. Geysler. There had been a depilation as a result of the treatment and if the treatment were continued over a sufficiently long period there would be a permanent alopecia. In other words, it was necessary, in order to prevent the further growth of hair, to effect a permanent atrophy of the hair bulbs. This, naturally, would be followed by a shrinking or complete disappearance of the hair follicles and might be accompanied by an atrophy of the sebaceous glands and of the arrectores, a flattening out of the papillae as a result of the retarding of cellular activity in the basal layer of the epidermis and, also, atrophic changes in the connective tissue, vascular apparatus, coil glands, etc. These changes were likely to produce more or less visible wrinkling of the skin which might not be noticed until after the lapse of many months.

In one of the patients there had been a slight erythema. This caused the speaker to remark that even a very slight, transient erythema might be followed in a year or two by a marked and disfiguring telangiectasia. The speaker was cognizant of the fact that a permanent alopecia could be effected without subsequent roentgen-ray sequelae, but the risk was so great that he felt that the treatment was not justified in a condition like hypertrichosis, which was looked on as a cosmetic defect rather than a disease, unless the case was indeed, very exceptional. Even in unusually severe cases, or when electrolysis was a failure, or when the patient was going insane, the speaker would advise against the institution of roentgenization unless the difficulties, dangers and possibilities were explained to the family in the presence of the patient and the family physician, or a consultant. Even such a procedure would not legally prevent the institution of a suit for malpractice in case of an untoward result.

DR. GOTTHEIL agreed with Dr. MacKee and said he would like to know Dr. Geysler's reasons for taking this stand. If he recalled it correctly, Dr. Geysler had previously said that roentgen-ray treatment for this condition was inadvisable and that he must have had, therefore, some good reason for changing his mind.

DR. GEYSER said he agreed with everything Dr. MacKee had said, except when he laid stress on the atrophy of the hair muscles. Those muscles were there before the hairs on those patients' faces and they did not show then, and there was no reason why they should show so markedly afterwards. It did not make any particular difference because he said a certain thing was dangerous, everything was dangerous. Every drug may be dangerous, but the oftener and longer one used it, the greater the experience and results. There was every reason for changing an opinion, and he had shown case after case at this Society and every one of them showed good results.

DR. GOTTHEIL said that Dr. Geysler must have had some additional experience which made him revise his opinion.

DR. GEYSER said the whole secret lay in screening the dose—simply screening sufficiently with aluminum, giving the patient two or three treatments with 2 or 3 milliamperes of current, and if one saw a reaction that came too soon, or no reaction at all, one would not expect to use 5 milliamperes. Only when one could see absolutely no reaction, that was the dose; and if the case were screened more than that, there would be no result, and if less, a dermatitis. If one once obtained the result, the same remarks that applied in hypertrichosis would apply in any other lesion, so far as the sound skin was concerned.

DR. MACKEE said that what Dr. Geysler stated regarding the danger of roentgen-ray sequelae in conditions other than hypertrichosis was true only to a certain extent. The total dosage required to cause the disappearance of the

lesions in the ordinary case of acne, psoriasis, eczema, lichen planus, tinea tonsurans, granuloma annularis, verruca vulgaris, etc., was too small to produce atrophy of any of the anatomic elements. Furthermore, it was not necessary to provoke roentgen-ray erythema in such diseases so that there was no danger of a subsequent telangiectasia. In the more serious and recalcitrant affections, such as epithelioma, tuberculosis, keloid, etc., it was often necessary and justifiable to risk roentgen-ray complications and sequelae in order to effect a cure. The point that the speaker wished emphasized and the one that Dr. Geyser seemed to have overlooked, was that in order to produce a permanent alopecia, a total quantity of ray sufficient to cause a permanent disappearance of the hair follicles would have to be administered, and that this amount of ray administered to the skin for any purpose, was likely to produce visible wrinkling and even telangiectasia. In hypertrichosis, a large portion if not all of the face would be subjected to such possibilities, and in view of the fact that the condition was one of purely cosmetic importance, the speaker repeated that one was not justified in employing the treatment excepting under circumstances already mentioned.

The speaker said that his conception of the value and use of the filter was somewhat different from that held by Dr. Geyser. The roentgen ray from any tube was heterogeneous. That was to say, that there were "soft," "medium" and "hard" rays. The very "soft" rays exerted their maximum effect on the epidermis and, therefore, were valueless and even injurious in the treatment of hypertrichosis. A filter prevented the passage of such rays and, therefore, a filter could be used to advantage for this purpose. Nevertheless, an erythema could be produced by a filtered ray, and even with such a ray it was still necessary to cause a complete atrophy of the hair follicles before the alopecia would be permanent, and this might be followed by visible atrophy, as in the case of the unfiltered ray and for the same reasons. The speaker was not arguing on theoretical grounds—he had seen many untoward results follow the use of a filtered ray.

ACRODERMATITIS ATROPHICANS AND SCLERODERMA. PRESENTED BY DR. OCHS

The patient was a woman, aged 50, who had been presented before the Society three years previously. She showed lesions of acrodermatitis atrophicans on both legs, of five years' duration and a well-defined patch of scleroderma on the left breast, of one and one-half years' duration. She had an ulceration of the right leg, which was due to an injury to that leg and had no bearing on the acrodermatitis.

LUPUS ERYTHEMATOSUS DISSEMINATUS. PRESENTED BY DR. OCHS

The patient was a male adult, who showed several foci of lupus erythematosus disseminatus on the face and scalp. There were no lesions on the extremities or on the body. The duration of the disease was only six weeks and he was presented to show the rapidity of the progress of the disease. Altogether there were about one dozen foci, varying from pinhead-sized to quarter-dollar-sized lesions.

CASE FOR DIAGNOSIS. PRESENTED BY DR. WEISS

The patient was a male adult who showed lesions on both legs with minute telangiectases and so-called cayenne pepper spots. Some of them were rather grouped and annular, and some of them had atrophic centers. The patient had moderately varicose veins, which the speaker thought had no influence on the lesions. He would make a tentative diagnosis of purpura annularis telangiectodes.

DISCUSSION

DR. GOTTHEIL regarded the case as one of varicose eczema with purpura.

DR. PISKO said he was surprised that the remark had been made about this condition being so uncommon.

DR. OULMANN said that while Dr. Gottheil was right, many of such cases existed, as he thought, not only on the legs, but elsewhere. They had lately been described as purpura annularis telangiectodes. Cases that were regarded as chronic varicose eczema as well as those connected with that condition, belonged to the disease described by Majocchi.

DR. SATENSTEIN said there had never been any history of dermatitis, and the man had no evidence of dermatitis. The history showed that the lesions began as small, punctate spots on the lower third of the leg and gradually spread; those in the center disappearing, being replaced by pigment. He said the microscopic picture was entirely different from that of angioma serpiginosum, as described by Dr. Pollitzer in the case reported by Dr. Wise.

DR. MACKEE said that although this case presented unusual symptoms he could not identify it as one of purpura annularis telangiectodes. The case was not a purpura in the ordinary sense. There were vascular changes evidenced by the clinical telangiectatic puncta and by the thickened vascular walls found under the microscope. The hemorrhage was accidental and secondary. Furthermore, from a clinical standpoint, the condition was apparently secondary to a varicose eczema.

Purpura annularis telangiectodes was a definite clinical entity occurring in repeated attacks, the total period consumed in the evolution and involution of each outbreak being from two to six months. It was distinctly a primary eruption, not following varicose veins, eczema or any other condition. It affected the legs mostly, but often involved the thighs, trunk and arms. The lesions were annular and composed of a margin of bright-red, telangiectatic puncta, enclosing a yellowish-brown center with or without atrophy. Histologically there was a numerical increase in vessels, a panarteritis, a moderate infiltration, hemorrhages, hyaline degeneration and complete destruction of the vessels. The speaker said that while Dr. Weiss' case showed many features common to Majocchi's purpura, it was not sufficiently typical, either clinically or histologically, to be designated as purpura annularis telangiectodes.

DR. WISE said he would agree with Dr. Gottheil that they often saw this type of vascular dilatation and dermatitis on the legs, but he had seen no mention of any condition like that in textbooks or monographs, unless related to Majocchi's disease. The question was, had he overlooked these cases and considered them a sequel to chronic eczema and dermatitis or was it an entity, similar to purpura annularis telangiectodes?

DR. WEISS said he had very little to add to Dr. MacKee's histologic picture and thought it most probably a case of Majocchi's disease, which had not progressed far enough to give the classic picture as Majocchi had described it. Clinically, they had a certain gradual onset and minute telangiectatic spots, so-called cayenne pepper spots. Some of the lesions were rather inclined to form rings and were atrophic in the center. The patient never had a dermatitis and while the eruption might not be typical, it needed further study, and he would work out the case somewhat more broadly and report it later on.

ERYTHEMA PERSTANS. PRESENTED BY DR. WEISS

The patient was a young man, who showed lesions of erythema perstans, which were hyperemic and reddened about two months previously, but were now paling. These were fading away, showing a deep brown pigmentation due to slight hemorrhages. The lesions appeared on the chest, back, thighs and scrotum. Their appearance was inclined to be seasonal.

DISCUSSION

DR. GOTTHEIL said he saw an eruption occasionally called hemorrhagic urticaria which left large areas of pigmentation and which were similar to Dr. Weiss' case.

DR. OULMANN asked if the patient had ever taken quinin.

DR. WEISS said that Dr. Fordyce had suspected the ingestion of quinin. but this was two years ago. No quinin was taken since then. The speaker could not make out the etiology satisfactorily. The patient was anemic, and said that his stomach gave him trouble and his eruption occurred mostly when his stomach was out of condition. He also accused the seasons, saying it came out in the winter more than in the summer. The speaker said, the etiology in this case had not been cleared up as yet.

REPORT OF NODULAR AND ULCERATIVE LEPROSY TREATED WITH SALVARSAN. PRESENTED BY DR. GOTTHEIL

The patient, an adult woman with lesions of nodular and ulcerative leprosy, wanted the speaker to treat her with some German salvarsan. Relatives of the patient had stated that when she first came to this country she had received an injection on shipboard. Although she was tuberculous she had passed the immigration inspectors. The speaker supposed that all of the gentlemen had tried salvarsan in leprosy. She received 0.6 gm. of salvarsan and her improvement was marvelous. Many of the nodules flattened out and the ulceration and whole psychic condition was improved. She left the hospital since that time and had received 0.9 gm. with still further improvement. The woman's Wassermann reaction was negative.

DISCUSSION

DR. OULMANN said he applied salvarsan in leprosy at the time salvarsan was new, to study the action on the Wassermann findings. He did not observe any influence on the Wassermann reaction nor on the skin lesions.

PHILADELPHIA DERMATOLOGICAL SOCIETY

Regular Meetings, Jan. 15, Feb. 19, and March 19, 1917

HENRY K. GASKILL, M.D., *Chairman*

PARAFFINOMA. PRESENTED BY DR. GASKILL

The patient was a white woman, aged 30 years. At the age of 14, the bridge of her nose was raised by a subcutaneous injection of paraffin. For ten years there were no symptoms, then the trouble appeared as a reddened, firm, fibrous elevation at the site of the injection. There was marked rosacea with scaliness and enlarged capillaries. The patient thought the condition was made worse by the pressure of her glasses, the nose-piece of which rested just above the mass. The speaker first saw the patient in April, 1916. The nose was larger and redder at that time. The Roentgen-ray and high-frequency treatment had been used with benefit. At home, lotio alba was applied. Lighter and different type spectacles were to be worn. It was a question whether the whole condition had not been brought about by the pressure on the bridge of her nose.

DR. SCHAMBERG had seen a very similar case which seemed improved by the galvanic current and incandescent bulb. It was possibly helped by the heat rays of the latter. The skin was markedly rosaceous and there was more pronounced subcutaneous fibrosis than in this case. It also came on some years after the paraffin injection.

CASE FOR DIAGNOSIS. PRESENTED BY DR. STELWAGON

The patient, a white man aged 25 years, was a stenographer by occupation. The disease of the nails had existed two months, beginning on the right index finger and successively affecting the nails of nearly all the other fingers and

toes. The nails were undermined, loosened and partly lifted from the nail-bed. There was no indication of psoriasis on the general body surface. Scrapings had been negative for tinca. There had been no interference with nutrition nor heaping-up of debris and the lamellæ were not separated, as in psoriasis.

DISCUSSION

DR. GASKILL had seen two similar cases, one in this country and one in Vienna.

DR. SCHAMBERG had such a case, now nearly well. The treatment was calomel ointment, 20 grains to the ounce.

DR. STELWAGON was of the opinion that the Roentgen-ray helped these cases as well as soaking in antiseptic solutions. The etiology, it was agreed by several members, was frequently hard to determine.

POLYCYTHEMIA WITH GENERAL PIGMENTATION. PRESENTED BY DR. SCHAMBERG

A white man, aged 57 years. This patient and the two following cases were from the wards of the Philadelphia General Hospital. The eruption was practically universal. It consisted of a generalized, scaly, eczematoid outbreak, the most striking feature being a marked pigmentation. Although the patient gave a history of an attack of eczema several years ago there was no pigmentation until the past year. Furthermore there was associated here a polycythemia, the red corpuscles at different times giving counts of 6,680,000, 6,210,000, 5,470,000. There was no cyanosis here but a true pigmentation. There was a curious bluish look by artificial light, almost suggesting argyria.

PSORIASIS. PRESENTED BY DR. SCHAMBERG

Negro, man, aged 47 years. This patient presented a typical psoriatic outbreak of twenty years' duration. The scalp was nearly covered, the palms were extensively involved and there were numerous circinate and gyrate, sharply margined, scaly patches on the trunk and extremities.

DISCUSSION

DRS. STELWAGON AND KNOWLES agreed with the speaker that such a case in an apparently full-blooded negro was quite uncommon. The former added that keratoses and epitheliomas of the skin were also almost unknown in that race.

CASE FOR DIAGNOSIS. PRESENTED BY DR. SCHAMBERG

The patient was a moderately dark negro woman, 26 years of age. She showed in both axillae and adjacent areas extensive, thickened, slightly elevated, inflammatory patches. They were sharply margined and tended to vesiculation on the borders, with, in places, secondary pus infection. There were a number of scars on her body. One of these on her leg resembled a syphilitic cicatrix. Her Wassermann reaction was negative. From her groins large patches extended down the inner side of each thigh for about 15 cm. They were similar in appearance to those in her axillae. The patient's history was vague and unsatisfactory. She said the eruption relapsed. This attack had lasted a year. The upper lip was swollen and a severe rhinitis was present. The lesions will be examined for mycotic forms and a biopsy will be made.

SECONDARY SYPHILIS. PRESENTED BY DR. GASKILL

A negro boy, aged 19 years. He was a patient in the Philadelphia General Hospital. A chancre appeared three months ago; the eruption was of six weeks' duration. He exhibited an abundant generalized eruption, favoring particularly the face, back and extensor surfaces of the arms. The type of

lesion was the small pustular syphilid throughout, drying up and healing uniformly with pitted scars. The whole picture was quite suggestive of variola.

BULLOUS DERMATITIS. PRESENTED BY DR. SCHAMBERG

Patient was a white girl, aged 8 years. This condition had existed five years. The patient presented a crusted eruption on the nose, cheeks and lips. A few drying bullæ were visible. It was a bullous eruption which appeared in crops on the face, hands and lower arms. There was scarring on the backs of the hands. The finger nails were not affected. The speaker did not think this a case of epidermolysis bullosa, regarding its onset as too late for that disease. Considering that it appeared a year after vaccination it seemed unlikely that it was the bullous eruption following vaccination. Fowler's solution improved it but it had returned. It was worse in hot weather and unfavorably affected by direct sunlight. The eruption appeared only on uncovered areas.

DISCUSSION

DR. STELWAGON considered the case to be one of hydroa vacciniforme.

DR. SCHAMBERG felt that it was allied to pemphigus.

EPIDERMOLYSIS BULLOSA. PRESENTED BY DR. GASKILL

A white girl, aged 14 months. Since two days of age she had had recurring bleb formation on her feet and hands. Some appeared under the toenails. The patient's mother had had the same type of eruption on her feet, hands and chin. While not so common as formerly they had appeared recently when she worked hard or wore tight shoes. No other member of the family had had the disease.

SCLERODERMA. PRESENTED BY DR. HIRSCHLER

The patient was a Jewess, aged 36 years. The condition has existed for four years. She was scarcely able to bend her ankles, the skin there being indurated, brawny, brownish and shiny in appearance. Over the knees the skin was at one time similar to that described, but the latter joints were no longer hide-bound. The disease, having undergone atrophy in those areas, exhibited only retrogressive changes.

LICHEN PLANUS VERRUCOSUS. PRESENTED BY DR. SCHAMBERG

The patient was a mulatto, aged 37 years. He was born in Cuba. At the age of 8 years a small patch appeared on the left leg, had never disappeared and existed as a large area of verrucous nodules on the outer side of the same leg and thigh. The Wassermann reaction was 4 plus but the speaker felt that syphilis did not enter into this condition, which he regarded as verrucous lichen planus. Individual outlying lesions somewhat resembled prurigo nodularis. A biopsy will be made.

DR. WALTER W. KING, Surgeon U. S. P. H. S., in charge of the Research Department of Tropical Diseases, San Juan, P. R., was a guest at the meeting. At its close he showed photographs of mycelial infections of vaccination sores and growths on culture media, from various of his fungus cases. Yaws was rather rare on the island, though said to be more common in the British West Indies.

CASE FOR DIAGNOSIS. PRESENTED BY DR. STELWAGON

A white girl, aged 18 years, was a private patient of Dr. Philip Marvel of Atlantic City, who gave her previous medical history. The father died of pulmonary tuberculosis and was known to have had syphilis. The patient developed a pyelitis at the age of 9 years, which, although of a mild type, had persisted. Colon bacilli were constantly present in the urine from the

right kidney. As a child, the patient lacked animation and was somewhat pallid and easily fatigued. At the times when the pyelitis became acute a low, irregular temperature existed. Tubercle bacilli were never definitely determined in the urine, though it was frequently examined for them. One observer reported them but another pathologist felt that the organisms found were smegma bacilli. The von Pirquet reaction was negative, as was also the tuberculin injection. The strength of the latter was not noted. Six or seven years ago, the skin eruption started as a circinate, reddish patch on the forehead, a little below the hair line. It had slowly but steadily spread upward into the scalp and downward over the forehead, nearly to the eyebrows. The border was sharply defined, though broken in a few places, slightly infiltrated and of a reddish color. The enclosed area showed skin of a slightly atrophic and stretched appearance—extremely superficial scarring. Subsequent to this area a patch appeared behind the left ear and still later several infiltrated psoriatic spots appeared on the scalp, in the occipital region. These latter had disappeared and the patch behind the ear was much improved. No other outbreak existed on the body surface. There had been no hair loss, no follicular involvement and the eruption was very superficial throughout. The speaker looked on it as a thin lupoid infiltration—a very superficial lupus vulgaris. Earlier it had a distinct yellowish-red tint, less apparent on presentation. It had spread in spite of local treatment.

ACRODERMATITIS PUSTULOSA HIEMALIS. PRESENTED BY DR. HARTZELL

The patient was a white woman, aged 28. Ill-defined, reddish patches were seen on the fingers of her left hand. These areas had a swollen, dusky, tense look. She had had the condition for the past three winters. Itching was a marked symptom. During the summer her hands were white.

The speaker regarded chilblains as different from frostbite, as many not exposed to cold contracted the former.

LICHEN PLANUS. PRESENTED BY DR. HARTZELL

eral eruption and was exhibited principally for the striking tendency of the lesions to occur in linear form in scratch marks. There were many rounded as well as flat angular papules.

HEALED EPITHELIOMATA (2 CASES). PRESENTED BY DR. PFAHLER

The first patient was a white woman, aged 52 years. Seven years ago an epithelioma developed on the dorsum of her tongue. An excellent result was obtained under roentgen-ray treatment and the scar had shown no tendency to break down since.

The second case was that of a white woman, aged 66 years. A new growth started in the center of an old indurated scar caused by a healed lesion of epithelioma. The patient was exhibited to show the good result obtained both as to the healing of the epithelioma and the softening of the old scar.

LUPUS ERYTHEMATOSUS. PRESENTED BY DR. STELWAGON

A white man, aged 35 years. The duration of this disease was four years for the patch on the cheek, three years on the upper lip and its vermillion. On the left cheek was a markedly inflammatory, thickened area, almost palm-sized. There was a smaller patch behind the left ear. The large patch was quite typical, the central portion pinkish, with thin, whitish scales and redder, well-defined border. The process had been at a standstill for some time and it was suggested that energetic treatment would be advisable—preferably carbon dioxid snow or the Roentgen ray. Under the present treatment it had flattened down appreciably.

PAPULO-SQUAMOUS DERMATITIS OF INFECTIOUS ORIGIN. PRESENTED BY DR. SCHAMBERG

The patient, a white woman, married, aged 23, five years ago had an attack of tonsillitis which was followed, after a week, by an eruption which developed into an exfoliative dermatitis. It was two months before the condition entirely cleared up. In February, 1917, she had a second attack of tonsillitis and one week later came to the speaker with a generalized, widespread eruption, of one month's duration. It consisted of maculo-papules, from pea to finger-nail in size, all red and inflammatory and many covered with a thin, whitish scale. The trunk, extremities, palms, soles and scalp were seats of the outbreak which grossly somewhat resembled an acute psoriasis. Considerable itching was present.

Dr. Kolmer made blood cultures from this patient, obtaining, under anaerobic conditions, a small micrococcus which in bouillon developed in chains—evidently a streptococcus. Aerobic cultures were invariably sterile. These findings made the case of particular interest in that it followed tonsillitis and made reasonable the supposition that it was a dermatosis following a focal infection. Presumably the organism causing the tonsillitis had entered the circulation and produced this general eruption. The condition was slowly improving under a mild lotion. To expedite matters it was proposed to inject, intravenously, an organic mercurial preparation made at the Polyclinic laboratory.

CASE FOR DIAGNOSIS. PRESENTED BY DR. GASKILL

The patient, a white man, aged 31, was a horse dealer and the eruption on his body was of six weeks' standing. There were three rather distinct types of eruption. On the scalp, face, trunk and as far down as the upper third of the thighs there existed a quite inflammatory, crusted and vesicular eruption. The lesions were small, scattered and for the most part, drying. In the axillae, flexors of elbows and to some extent in the groins, were numerous small, scaly maculo-papules, somewhat suggestive of psoriasis. The palms showed a condition of keratosis resembling that produced by arsenic, but the patient denied having taken any medicine internally. He had used a sulphur ointment externally.

The lesions were of distinctly purplish color, sharply margined and were much more numerous in the anterior axillary folds and the flexure of the elbows. Across the back and over the sternum, were some lesions which had become infected from scratching. The speaker said that on a previous occasion he had seen a vesicle where one of these infected lesions was present. The condition extended only as far down as the middle of the thighs. The genitalia were markedly inflamed and edematous.

TERTIARY SYPHILIS. PRESENTED BY DR. PFAHLER

A white woman, aged 54, had an eruption which began four years ago, as a small lump on her right cheek. This spread and broke down. Later another patch appeared on her left cheek. Elsewhere she was treated with the roentgen ray and she felt that the eruption was unfavorably influenced thereby. Examination revealed an infiltrated area on her right cheek, involving the right side of her nose. There was situated therein an irregular, crescentic arrangement of deep papulo-pustules and nodules. The patch was dark red, some ulceration was present and the whole area slightly larger than a silver dollar. On the left cheek was a smaller patch, nearly circular in outline. This case was a typical tertiary syphilis. This diagnosis was concurred in by those present.

CASE FOR DIAGNOSIS. PRESENTED BY DR. PFAHLER

The patient, a white woman, aged 45, came under the speaker's care one year ago for the treatment of a scaly, superficial, circinate lesion, about the size of a silver dollar. It was situated on the cheek, just in front of the right ear. Several times, under the speaker's roentgen-ray applications, it had been appar-

ently cured but had each time recurred. No such treatment had been given since October, 1916, as the speaker thought the persistent scaliness might be due to Roentgen-ray dermatitis. The redness of the patch has been present since the beginning—the scaliness mainly since the Roentgen-ray treatments were discontinued. The induration was quite superficial and in places oozing occasionally took place, with subsequent crusting. A mild itching was present.

DR. SCHAMBERG suggested a mild salve in place of further radiation.

PSORIASIS. PRESENTED BY DR. PFAHLER

This patient, a white woman, aged 47, showed a patch of inveterate psoriasis on her left elbow. It was of twenty-two years' duration and the disease had not shown itself elsewhere on the body surface. Since July, 1916, she had had but four roentgen-ray treatments, the dosage varying from 5 to 20 milliamperes minutes, filtered through 6 mm. of aluminum. The patch has markedly improved, a change being noted after the first treatment.

GRANULOMA. PRESENTED BY DR. SCHAMBERG

Mulatto man, aged 35, was a quarter-breed Indian. This patient had a throat condition of five years' standing. Starting in the right tonsil, an ulcerating neoplasm had invaded the pharynx, uvula and floor of the mouth. There was marked hyperplasia of tissue. Of eight Wassermann tests attempted, but one was satisfactory and that was negative. The difficulty was due to the patient's blood being anticomplementary. Nevertheless, he was given several injections of arsenobenzol with some improvement in his general health but with no effect on the neoplasm. Injection of excised tissue into a guinea-pig gave negative results for tuberculosis. A biopsy showed a dense round-cell granuloma—no giant cells or other diagnostic features. No organisms had been found in the mass. The patient had gained 7 pounds in three months. No particular change in the lesions had been noted in this time. The neighboring lymph nodes were but slightly enlarged. The lungs gave no evidence of tuberculosis. His only complaint was weakness.

MINNESOTA DERMATOLOGICAL SOCIETY

Regular Meeting, Feb. 13, 1917

S. E. SWEITZER, M.D., *President*

DERMATITIS HERPETIFORMIS. PRESENTED BY DR. IRVINE

Patient, W. A. S., married, man, aged 40, had had eight children; family history was negative. He had the first attack of his skin trouble eight years ago and had never been entirely free from it since, although at times it had almost disappeared. It did not vary with seasons nor did diet appear to influence it.

The patient was first seen May 25, 1916; at that time there was a general eruption over the trunk, extremities and some on the face. The skin as a whole was red and irritable. The lesions consisted of groups of papulovesicles or papulopustules on an urticarial base; there were periods of extreme itching.

The patient was exhibited especially to show the effect of treatment. From May 25 to July 6 the patient was given six subcutaneous injections of from 30 to 40 c.c. of autogenous serum, also several injections of 150 c.c. of Ringer's solution. There was no apparent effect. In the latter part of July, the patient was given daily injections of sodium cacodylate for a period of ten days with no apparent benefit. Since August, the patient had been given, at weekly intervals, a combination of staphylococcus and streptococcus vaccine. November 2

a tonsillectomy had been performed, and one tonsil contained pus. Within forty-eight hours, itching had ceased and the lesions began to regress until within a few days the eruption had almost disappeared. The teeth had been examined and treated where necessary. During November and December there was a gradual return of lesions but only about half as bad as formerly. January 8 the patient was started on thyroid, 3 grains daily and again a regression of the lesions took place, until February 6 when an examination failed to reveal a single lesion. More recently two or three lesions had appeared. During the eight months the patient had been under treatment, nothing had been done locally; all efforts had been directed toward general conditions, and while there had been many exacerbations their severity had continued to decrease.

FAVUS. PRESENTED BY DR. IRVINE

The patient, A. L., aged 14 years, had the disease eleven years; two sisters were also infected. The boy was born in this country and came to Minneapolis a few weeks ago from Michigan. The scalp showed irregular sized and shaped areas of atrophic baldness with here and there clumps of hairs in the scars. Over a large part of the scalp there were patches of infected hair with typical scutula. A specimen demonstrating the fungus was shown under the microscope. The patient was being treated with the roentgen rays to epilate.

SYPHILITIC EPIDIDYMITIS. PRESENTED BY DR. OLSON

This patient, a man, aged 28, had had an untreated syphilis for one and one-half years. He showed mucous patches in the mouth, very large epitrochlear and postauricular glands, and complained of severe headache. A large, practically painless swelling, the size of a small orange was present on the scrotum on the left side, and was found to involve largely the epididymis. The patient showed no discharge and stated that he had never had gonorrhea. The speaker stated that he had seen two similar cases in Berlin, in 1913.

DISCUSSION

DR. WRIGHT stated this patient showed a different form of syphilitic epididymitis from the two cases that he had recently reported. Recently he had had a third case of this kind under his care. His cases occurred late in the course of syphilis and had appeared simply as ordinary hydroceles in which the syphilitic enlarged epididymis could be felt. The hydrocele and the enlarged epididymis disappeared under specific treatment.

EPIDERMOPHYTOSIS. PRESENTED BY DR. COOK

The hands and forearms only of this patient, a young lady, were involved. The fingers and palms showed large vesicles and about the wrist there was a tendency towards a circinate form. Fungus examination had not been made but all were agreed that it was a typical clinical case of epidermophytosis.

SARCOID OF BOECK. PRESENTED BY DR. SWEITZER

Miss A., aged 33. The disease began on the face seven years ago as a lump under the skin, gradually involving the skin. The lesion on the right cheek was 5 by 7 cm., hard, red and elevated above the level of the skin. It felt soft to the touch, and had numerous dilated capillaries running over it. It paled considerably on pressure. A similar lesion, measuring $1\frac{1}{2}$ by 4 cm. was present on the left eyebrow. A subcutaneous nodule could be felt above the right elbow and one in the left axillary fold. The skin on these lesions was not involved.

Biopsy showed typical epithelial bundles, a few giant cells, etc., corresponding exactly to the pathology of sarcoid of Boeck.

Book Reviews

DIE TUBERKULOSE DER HAUT (TUBERCULOSIS OF THE SKIN).

By F. LEWANDOWSKY, Hamburg. Enzyklopaedie der klinischen Medizin.
Published by Julius Springer, Berlin, 1916. 330 pages.

In 1906, Jadassohn wrote his exhaustive monograph on cutaneous tuberculosis for Mracek's Handbook. Since that time no publication approaching this in completeness had appeared until Lewandowsky produced the volume now under review. This comprises the "chapter" on cutaneous tuberculosis, in the special section devoted to tuberculosis, of the Encyclopedia of Clinical Medicine edited by Langstein, von Noorden, von Pirquet, and Schittenhelm.

While Lewandowsky modestly denies any desire to surpass the masterly monograph of Jadassohn, his book will not suffer by comparison with that of his distinguished teacher, and possesses the added merit of being abreast of the times. During the past decade much has been developed in the field of immunity, and Lewandowsky has given considerable space to the discussion of immunity in its relation to the pathogenesis of cutaneous tuberculosis. About one-fourth of the book is concerned with the questions of etiology and pathogenesis, which are discussed most thoroughly from the standpoint of recent advances in the field of immunity. This part of the book in itself constitutes a formidable monograph and deserves special commendation, much of the experimental work, notably on the tuberculids, being original with the author.

The special or clinical part is a well arranged, comprehensive and critical presentation of the clinical aspects of cutaneous tuberculosis. The section dealing with the exanthematic forms (miliary tuberculosis, lichen scrofulosorum, papulo-necrotic tuberculids, erythema induratum, Boeck's sarcoids, angiolupoid) deserves special mention. Lichen nitidus and lupus erythematosus are included among the diseases of uncertain tuberculous etiology, which are embodied in a lengthy chapter, well written, in a critical vein.

The therapeutic section comprises about fifty pages and is an admirable review of the subject. The methods of treatment best adapted to the individual case are set forth in detail and given their proper value. Roentgen rays and radium are given prominence in the treatment of cutaneous and mucous membrane lupus, often combined with excision, and tuberculin is advised for the tuberculids. In the deeper forms of lupus erythematosus carbon dioxid snow is advocated.

The illustrations are numerous and well chosen, as the author had the privilege of selecting from the large collections of Jadassohn and Arning. Six photomicrographs and numerous excellent histologic sketches, many of them in colors, are included. The Lassar, Neisser and Hamburg moulage collections are represented by twelve well executed colored plates.

An extensive bibliography, which does not as usual entirely disregard our American literature, completes a book which reflects great credit on its author and will for many years remain authoritative in its special field.

O. H. F.

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Original Communications

SYMPOSIUM ON CANCER

THE ETIOLOGY AND PATHOLOGY OF SKIN CANCER *

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CHICAGO

Cancer is a subject of absorbing interest, and during the past few years there has been an immense amount of effort exerted to determine its cause.

V. Hanseemann, Lubarsch and others have pointed out that there is no sharp line separating the benign from the malignant neoplasms. The frequency with which growths of this sort occur and the ready accessibility of the skin would seem to make this organ especially adapted for the study and experimental investigation of these tumors. However, a rather careful review of the recent literature has shown that, from an experimental standpoint, skin cancer has been almost neglected. There has, on the contrary, been a great amount of work on cancer in general, and a review of that work and its relation to skin cancer is the basis of this paper.

None of the various theories as to the origin of cancer has been able to explain all of the facts. The parasitic theory has been all but abandoned and has recently lost its staunchest advocate by the death of Czerny.

The work of Smith¹ on the crown gall of plants is suggestive, but his *Bacillus tumefaciens* probably bears the same relation to crown gall, that the bilharzia parasite bears to carcinoma of the bladder in man, or the nematode found by Fegiger² bears to carcinoma of the stomach in rats. They all represent forms of chronic irritation.

* Received for publication June 25, 1917.

* Read before the Forty-First Annual Meeting of the American Dermatological Association, Cincinnati, May 24-26, 1917.

Thiersch's theory, of a loss of balance of the tissue, which was modified by Ribbert, serves to account for many phases of the subject. V. Hanseemann's theory of anaplasia of the epithelial cells also serves to account for certain facts. Cohnheim's embryonic cell rest theory as a result of recent work seems to be coming into its own again.

The etiologic factors of cancer may be divided into (a) internal and (b) external.

(a) UNDER THE INTERNAL FACTORS we would group race, age, heredity, embryonic rests, metabolic disturbances and connective tissue changes.

(b) UNDER THE EXTERNAL FACTORS we would group parasites, traumatism and other forms of chronic irritation.

In the etiology of carcinoma of the skin, the internal factors of carcinoma in general, while operative, are much less evident on account of the greater rôle played by various forms of chronic irritation.

RACE. It is well recognized that the colored race is relatively free from skin cancer. This has been thought to be due to the protective action of the pigment. To be sure, this probably is a factor, but the same comparative freedom is found in all aboriginal races. And, further, this immunity is not confined to the skin but is seen also as regards cancer of the internal organs. V. Hanseemann³ has studied the occurrence of malignant disease in the German tropical colonies and shows the great infrequency of it. I. Levine⁴ has reports of only twenty-nine cases of cancer in over 115,000 American Indians. His reports show that it is very rare in Indians compared to whites living in the same localities. Schuffner⁵ says that in Sumatra, carcinoma is rare, but warts are common. Renner⁶ says that cancer is rare among the aborigines of Sierra Leone, but is increasing among the descendants of freed slaves. He thinks that adopting the European mode of life increases the liability to cancer. After considering the subject of cancer among the colored, Levine⁴ says, "the conclusion is forced on one's mind that while every human being may carry within himself the X which may develop into cancer, it is the modern civilization and the conditions created by it that gives rise to the immediate causes which produce the disease."

It is evident that race influences the etiology of cancer in man, and it is interesting in this connection to recall the marked immunity to Jensen's tumor shown by the Berlin mice in contradistinction to those of Copenhagen and England.

AGE. Probably the most constant etiologic factor in carcinoma of the skin, as in carcinoma in general, is old age. This is true of cancer as seen in experimental animals, as well as man. But, paradoxical as

it may seem, transplanted cancer grows best in young, vigorous animals.

There have been various explanations for this predilection of cancer for old age, none of which is satisfactory, and the probability is that more than one factor is operative.

Theilhaber⁷ compared the tissues of old and young in man and animals, and found that in old age the tissues resembled scar tissue to a greater or less extent. The older the connective tissue the fewer cells it contained; also the younger the individual the more abundant the blood supply and the vessels had thinner walls and wider lumina. The opposite was true in the aged. He found that in old age the epithelium showed no marked retrogressive changes. Theilhaber⁷ says that the intensity of a disposition to cancer is in inverse ratio to the number of cells found in the connective tissue. In addition to these connective tissue changes of old age on which he lays such stress, Theilhaber⁸ assumes that another factor, a change in the body fluids, is necessary—the humeral predisposition.

Neumann,⁹ in his study of the senile skin, found the principal changes in the connective tissue. There was granular degeneration, hyaline swelling and the tissue was less cellular.

Rössle,¹⁰ in an interesting paper on the influence of age on tumor formation, calls attention to the fact that all tissues do not age simultaneously. A child's epidermis differed but little from that of adults; but the connective tissue of a child is much more cellular, more succulent and poor in intercellular substance, while that of the adults is rich in intercellular substance and poor in cells.

Whatever the reason may be, there is no clinical fact in regard to skin cancer which is so certain as that it is an old age disease; admitting, however, that there are many and remarkable exceptions.

Freund¹¹ emphasizes the more rapid aging of connective tissue and its loss of restraint on the inherent proliferative powers of epithelium, as an explanation of cancer formation.

Adami¹² has suggested that "possibly the tendency to develop cancer in later life, has some relationship to the reversion and degeneration of gland cells at this period. As the tissues become more exhausted, the more highly differentiated cells tend to become structurally simpler. With the reversion to a simpler type, there may be a greater liability for these cells to assume proliferative powers."

Theilhaber,⁸ Lauterborn¹³ and others think the atrophy of various endocrine organs, as the spleen, ovaries, testes, bone marrow, etc., which occurs in the latter part of life, is a predisposing factor. There are many observations in the experimental study of the disease which lend weight to the theory and when we realize the marked effect the

secretion of various endocrine organs have on metabolism and growth, we must admit that a more complete knowledge of their functions may go far to solve the question.

In the discussion of Fordyce's¹⁴ paper on this subject, LeCount speaks of the tendency to ascribe the growth of malignant tumors to processes of metabolism, not at present understood but which may eventually be found analogous to those which are concerned with normal growth.

SEX. It is generally held that cancer of the skin occurs with about the same frequency in the two sexes; it is probably somewhat more frequent in men. Certain it is that the frequency varies markedly according to location. This is readily explained by the difference in the habits or customs of the two sexes.

Carcinoma of the lips, or buccal mucosa, is very much more common in men; except in those regions where betel is used, when the difference is not so great.

Borrmann's¹⁵ statistics show that cancer of the cheek, the ear and eye region, forehead and temporal region is distinctly more frequent in men than in women. We believe this is due to the more common occurrence of keratotic lesions in these locations in men. Again cancer of the extremities is much more frequent in men than in women. This might be explained as the result of greater liability to traumatism and ulcers, especially syphilitic.

On the other hand, cancer of the scalp is much more frequent in women.

The writer has been unable to find any work dealing with the relative frequency of the various types of cancer in the different sexes, but he ventures the opinion that the spino-cell type is more common in men than in women.

METABOLIC DISTURBANCES. There seems to be a growing tendency to seek for the cause of cancer in a disturbance of the normal metabolism, either general or local. It is a fact that various deviations from the normal are found in the metabolism of cancer patients.

Gwerder-Pedoja¹⁶ says the origin of cancer depends on the condition of the body fluids, and less on the vital peculiarities of the body cells.

Blumenthal¹⁷ speaks of the chemical metaplasia or anaplasia of the cancer cell as the result of metabolic disturbances.

Wyss¹⁸ thinks that these disturbances, if present, must be local, for otherwise multiple carcinoma would be much more common. This, of course, is not necessarily so, for we can very well conceive that only certain cells, be they normal or the site of some slight change, might be affected by a general metabolic disturbance. Lubarsch¹⁹ says it is

easily possible that there are specific or nonspecific substances, which can activate the chemistry of cell division.

There are many clinical and experimental observations to substantiate this hypothesis. The marked influence of a persistent corpus luteum on the production of chorioepithelioma is pointed out by Pick.²⁰ There also exists a close connection between the wig-like tumors found in the deer family and disturbances of the testicles, to which Lauterborn¹³ has called attention; and he further noted the fact that the bulk of tumors in man occur during the involution period of the sexual organs, between 40 and 50 years in women and between 60 and 70 years in men.

There are some experiments in animal cancer which tend to throw a little doubt on such an intimate relationship.

Goldzieher and Rosenthal,²¹ in tumor mice, saw no effect of treatment with ovary, testicle, adrenal or thyroid extracts, nor did tumors grow oftener in castrated mice.

Theilhaber⁷ has repeatedly called attention to the fact that for the majority of tumors, something, as a change in the tissue fluids, is necessary in addition to the local conditions. He thinks that a deficient action of the spleen, thymus and other lymphatic structures is responsible. In experimental cancer it has been found that removal of the spleen increases the percentage of successful grafts and increases the growth.

Haslund, Borrell and Bashford²² found that pregnant animals were more resistant to inoculation and the tumors grew slower than in non-pregnant controls. Robertson and Burnett²³ found that the injection of pituitary extract into tumors of rats, caused a marked increase in growth.

There are some very suggestive findings in regard to cholesterol. Ludin²⁴ found the cholesterol values increased in malignancy. Doree, Ellis and Gardner²⁵ have shown that the cholesterol content of egg yolk decreases proportionately as the chick grows. Aschoff,²⁶ Autenrieth and Funk²⁷ have shown that the blood cholesterol is increased in pregnancy. Robertson and Burnett²⁸ believe that cholesterol is an important factor in the incidence of carcinoma of rats. They showed that intravenous injection of cholesterol sodium oleate emulsion caused grafted tumors to double in size.

Wacker²⁹ found the cholesterol content of the mesenteric and subcutaneous fat was 66 per cent. greater in carcinoma cases than in normal individuals. He also found an increased amount in the fat of aged persons.

Robertson and Burnett²⁸ think that the increased cholesterol is the cause of the incidence of carcinoma in old age.

There have been various other metabolic deviations noted, the significance of which is not understood at present; and yet they must be considered in connection with the etiology and pathology of cancer.

F. Müller,³⁰ Von Noorden³¹ and A. Schmidt³¹ showed that in carcinoma cases there is a specific disturbance of protein metabolism. Saxl³² showed that the entire protein metabolism is increased. Intermediate metabolism is disturbed with lessened urea excretion. Ammonia formation is increased and there is a lessened acidosis of the blood.

Menton³³ has shown a greatly increased alkalinity of the blood in cancer cases.

Probably the work that has the most direct bearing on the subject is that of Freund and Kaminer³⁴ who showed that the serum of carcinoma cases did not destroy carcinoma cells while normal serum did. They found that the destroying substance was an ether soluble, nitrogen free acid. In carcinoma serum they found a nucleoglobulin which paralyzes the action of normal serum and prevents the destruction of carcinoma cells. After extirpation of the carcinoma, this protecting substance remains in the blood. They believe that the presence of this protecting substance is the cause of the predisposition to carcinoma. They found that extracts of areas predisposed to carcinoma, as leg ulcer, stomach ulcer and endometritis did not destroy carcinoma cells, but extracts of similar normal tissues did. In a case of skin carcinoma, extracts of the skin did not destroy carcinoma cells. Extracts of the other organs did. They think that in chronic inflammation the protective fatty acid is used up and thus makes the area one of lower resistance.

Freund, Kaminer and Neuberg³⁵ showed that normal blood serum contained substances which would precipitate, agglutinate and dissolve carcinoma cells. These substances were not present in the serum of carcinoma patients. Braunstein,³⁶ Lewin and Meidner³⁷ have shown that the spleen contains a large amount of these protective bodies.

Kraus³⁸ has corroborated the work of Freund and Kaminer, but thinks the reaction is due to the metabolic products of the cancer cell, which are present in the serum. Rosenthal,³⁹ by means of the reaction of Freund and Kaminer, has shown the similarity between carcinoma and fetal cells.

Von Leyden and Bergell⁴⁰ showed that the normal liver contains a ferment which could dissolve carcinoma cells. A carcinomatous liver, on the other hand, did not contain this ferment.

It has long been held that the cancer cell was a parasite, a foreign body, and at the risk of being tiresome, we have detailed a few of the observations tending to show that in carcinoma there is a varied and

profound disturbance in the general and local metabolism. It remains for the future to separate cause from effect. However, there can be no doubt that the cancer cell, while it varies more or less morphologically from its antecedent normal cell, biochemically the difference is much greater.

A difference which is of practical significance is that of the resistance of the cancer cell to cold. Jensen⁴¹ showed that a temperature of — 12 to — 18 C. did not kill. Ehrlich⁴² obtained growths after 30 C. for forty-eight hours, also, cells kept at 8 to — 10 C. for two years were capable of growth.

This would tend to substantiate Pusey's and Pollitzer's advice against the use of carbon dioxid snow as a method of treatment of cancer.

At body temperature the cancer cells are destroyed in twenty-four hours.

· EMBRYONIC RESTS. It is generally admitted that Cohnheim's theory serves to account for a certain number of tumors. Still it does not explain why these latent cells suddenly start to grow. That is a question that the biochemist will have to answer. After the tumor has started, however, it is the histomorphologist who will have to decide whether the growth originates from an adult normally placed cell or from a fetal undifferentiated cell.

As far as the origin of tumors of the skin is concerned, this would seem to be preeminently a question for the dermatologist. He, especially, is the person who is in a position to see the growth in its earliest stages, and it is only when the growth is seen in this stage that the question can be decided. It is fair to assume that what is true of cancer of the skin, probably holds good for tumors in general.

Borrmann,⁴³ in his excellent article on the subject of skin cancer, comes to the conclusion that all cutaneous cancers originate in embryonal rests. While I find it is impossible to subscribe to all of Borrmann's conclusions, his views on the embryonal rest origin of the so-called basal cell carcinoma, seem to me to best explain various clinical and histopathologic phases of these tumors.

HEREDITY. The influence of heredity in the production of carcinoma has long been recognized and the extent of its influence studied and debated.

In recent years the question has been the subject of intensive investigation, the results of which would seem to be very convincing.

Bashford and Murray⁴⁴ crossed tumor mice with the tumor free offspring of cancer mice and obtained spontaneous tumors in 75 to 90 per cent. Tyzzer⁴⁴ substantiated these experiments. Levin and Settinfield⁴⁴ crossed tumor resistant male and female rats and found

that the offspring were markedly resistant to inoculation with Ehrlich's rat sarcoma. Loeb and Lathrop,⁴⁴ in animals raised under the same conditions, found the percentage of breast cancers differed according to the ancestry.

It remained, however, for Maud Slye,⁴⁵ as a result of her prolonged and painstaking selective breeding experiments, to show that the tendency to and incidence of spontaneous tumors in mice followed Mendel's law, and could be bred in and out of a strain at will.

Since this work of Slye's was so carefully done and her results so remarkable, it might be well to give some of her conclusions. She says: "What seems to be transmitted in cancer is the potentiality of the germ plasm to produce an individual whose tissues shall proliferate in the lawless fashion of the neoplasm, under a given provocation." She says further, and this is especially interesting to the dermatologist: "All my observations in this laboratory tend to show that the provocation is over-irritation at the point where the cancer occurs."

How are we to correlate these findings with the various etiologic factors which we have previously considered? There are several interesting hypotheses which one could imagine. One could suppose, for instance, that the tendency to a metabolic disturbance is inherited and there are not a few examples of such in medicine; one thinks immediately of hemophilia, gout, etc. In dermatology we have as example, xeroderma pigmentosum.

Bashford⁴⁶ says, however, that experiments have shown that the tendency to cancer is not due to constitutional modification throughout the body, because mice with an hereditary taint do not offer a more suitable soil than nontainted mice. Their experiments point to a localized tissue susceptibility rather than to a constitutional liability to the disease.

Again, one could suppose that the thing that was inherited was a tendency to the development of fetal inclusions. Of course, it is well recognized that various malformations are inheritable, possibly according to the laws of Mendel. Here again dermatology furnishes some brilliant examples, such as adenoma sebaceum, keratosis palmaris, ichthyosis, acanthoma adenoides cysticum, lymphangioma circumscriptum, xanthoma, fibroma molluscum and the so-called endothelioma capitis which we believe to be a form of basal cell epithelioma.

It is thus seen that in man heredity is a marked etiologic factor in the production of new growths of the skin of various types. It remains to determine the extent of its influence in cancer. This is, of course, a difficult problem and especially so, in regard to the cases as seen by the dermatologist. The growth being often slight and reacting so well to the modern therapeutic measures, that the descendants are apt to be ignorant of its occurrence in the antecedents.

So much for the internal factors responsible for the production of skin cancer. It must be admitted that our knowledge of the part they play is fragmentary and indefinite. That they are the really specific element and will eventually be discovered, we have no doubt. Probably they will be few in number.

EXTERNAL FACTORS. One can group the external factors under chronic irritations of all kinds. To be sure, these are important and definite, but they are so varied that it is difficult to conceive that they have any specific action. Probably all they do is to determine the site of the cancer. Although, until we know more of the internal physiology and chemistry of the epithelial cell, we shall have to admit that these functions may be subject to change in the direction of malignancy, by these external factors alone.

Probably the most evident of these external factors in the production of skin cancer is actinic energy of various forms. It has been said that the first experimental epithelioma was the roentgen-ray cancer. This being so, one would naturally suppose that a study of the effects produced on the skin by roentgen rays might furnish a solution of the cancer problem. Such, however, has not been the case. The changes found by various observers have differed not a little, a fact easily explained by the varying quality and quantity of the rays used.

Dalous and Lassere,⁴⁷ in their study, found the deeper layers of the epidermis most affected. The basal layer was less dense and in part destroyed. The rete and horny layers were only slightly affected. Darier,⁴⁸ Scholz⁴⁸ and others found the epithelial and connective tissue affected more than the blood vessels. Wyss⁴⁹ found the principal change in the blood vessels with proliferation of the endothelium and obliteration of many vessels. He thinks roentgen-ray carcinoma, as well as carcinoma in general, is due to vascular changes resulting in deficient nutrition of the epithelial cells. Lindenborn⁵⁰ found the principal change in the precapillary vessels. Schumann,⁵¹ Pels-Leusden⁵² and Coenen⁵³ found the vessels normal.

Wolbach⁵⁴ found the most conspicuous and constant changes in the corium. These consisted in a rarefaction just beneath the epidermis. This rarefaction he thinks is due to imperfect repair of degenerated connective tissue. He always found hypertrophy of the epidermis with here and there keratosis and epithelial downgrowths; these occurred especially over the areas of degeneration in the corium. He says that in nearly every case the downgrowth seemed to be due to a disappearance of the connective tissue. There was atrophy or absence of the appendages of the skin. In no case was there evidence of proliferation of these structures.

White⁵⁵ made a most careful study of the subject and examined the skin in various stages; he found an absence of the papillae and marked vascular changes. The changes in the epithelium were many and varied. He says, "one is struck by the manifold varieties of the pathological structures, almost every known phase of epidermic deviation has been encountered."

Rountree⁵⁶ also found an absence of the papillary layer, with dilatation of the superficial vessels and thickening of the deeper ones. He noticed that the epithelial cells became keratinized sooner than normal.

Weidenfeld and Specht⁵⁷ noticed that the roentgen-ray skin enjoyed a marked immunity to infection, and they think that the rays awakened a slumbering function of the connective tissue cells by which they destroyed bacteria and by which they favored the growth of epithelium.

Coenen⁵³ says roentgen-ray carcinoma is due to direct injury to the epithelium which is chronically irritated.

It was early noticed that roentgen-ray skin resembled the senile skin. The histologic changes previously detailed show the reason for the resemblance. They do not, however, explain the cause of the carcinoma. Whether this is to be sought in the connective tissue changes as Ribbert and others believe or whether, as is more probable, the rays cause a change in the biologic character of the epithelial cell, are questions for the future to answer.

It is important, in this connection, to call attention to the fact that carcinoma is not the only type of malignant growth seen following roentgen-ray exposures. Pels-Leusden,⁵⁸ Riehl,⁵⁹ and Perthes⁶⁰ have each reported sarcoma following roentgen-ray exposures. It is also interesting to note that all of these carcinomas belong to the spinocellular type, and this in spite of the fact that a great many have occurred on the face, a region in which the basal cell type is most common.

Presumably radium causes changes in the skin similar to those produced by roentgen rays. It has been asserted that there is no danger of radium causing epithelioma, and we have been unable to find a report of such a case. However, it is well to note that Rethi⁶¹ saw a papilloma of the tongue become malignant after treatment with radium. It will probably not be a great while before radium cancer will take its place alongside of that produced by the roentgen ray.

LIGHT RAYS. That the ultraviolet rays have an etiologic rôle in the production of carcinoma of the skin, has long been recognized. The reason for this is not known. Possibly the action of these rays is similar to that of the roentgen rays. On the other hand, it is known that the rays are capable of causing circumscribed, chronic inflammatory conditions of the skin which often eventuate in carcinoma.

Dubreuilh⁶² and Hyde,⁶³ especially, have emphasized the significance of sunlight in the production of these conditions and carcinoma. The most frequent of these precarcinomatous conditions is the so-called senile keratosis. Montgomery⁶⁴ has recently shown the marked influence of sunlight in the production of these lesions. They will be taken up more in detail later.

It is conceded that in xeroderma pigmentosum the ultraviolet rays have a marked effect in causing the malignant changes, and yet the occurrence of these changes on the covered parts of the body, and the fact that in this disease, while carcinoma is far and away the most frequent tumor, sarcoma and fibroma have also been reported, would seem to point to these rays as being an exciting cause only; the important factor being some condition of the tissues or fluids of the body by which the cells easily become malignant. As v. Hansemann⁶⁵ puts it, in this disease there is a tendency to anaplasia of the epithelial cells.

MECHANICAL TRAUMA. The influence of trauma on the production of carcinoma, while well recognized, is difficult to explain. Ribbert would have us believe that the mechanical displacement of epithelial cells from their usual environment, with the accompanying inflammatory changes in the connective tissue accounts for the malignant change.

It has been shown repeatedly that experimental implantation of adult or fetal epithelium into normal or inflamed connective tissue does not produce carcinoma.

Certain it is that carcinoma may originate from single and apparently slight or more often from recurrent traumatism. This is the usual history in pigmented nevocarcinoma. The reason for the onset of malignancy has not been determined.

We now have to consider various dermatological conditions which are frequently followed by or develop into carcinoma. They appeal especially to the dermatologist because they represent a large majority of the cases of carcinoma coming under his observation. Some or all of these conditions have been carefully studied by Hartzell,⁶⁶ Fordyce,⁶⁷ Engman,⁶⁸ Schamberg⁶⁹ and others.

The most common of these is the so-called senile or seborrheic keratosis. The pathogenesis of this affection has not been very clear. Sutton,⁷⁰ however, has clarified the matter somewhat by drawing a distinction between the two varieties, the keratotic and nevoid. The nevoid variety occurs most frequently on the trunk and much less often develops carcinoma.

The keratoid or verrucous type occurs principally on the face and hands, and since they probably form the largest class of precancerous lesions seen by the dermatologist, a more detailed consideration of them might be profitable.

The histopathology has been studied by Hartzell,⁶⁶ Fordyce,⁷¹ Waelsh,⁷² Poor,⁷³ Pollitzer,⁷⁴ Unna⁷⁵ and others. The findings of the various authors differ somewhat, due to the fact that they have studied lesions of different ages. Unna and Pollitzer did not distinguish clearly between the several varieties, so their findings vary greatly from those of later observers.

Hartzell's⁶⁶ description represents very well the conditions found by the different authorities. He found a marked increase in the thickening of the corneum, the cells of which retain their nuclei. The greatest thickening is about the mouths of the hair and sweat follicles. The rete changes are varied; in the early lesions there is a slight acanthosis, although there is always evidence of proliferation. In the older lesions are seen all degrees of thickening, up to actual invasion of the corium. The corium showed few changes. The sebaceous glands were normal. The sweat glands, however, showed changes in every case. The changes in the coil glands were so marked and so constant that Hartzell thinks they play a very important rôle in the disease. Handford,⁷⁶ Jarisch,⁷⁷ Dubreuilh⁷⁸ and others have noted the marked elongation of the rete pegs.

Pollitzer⁷⁴ found a very marked fat infiltration around the individual cells of the epidermis and in the upper part of the papillary layer. Neither Dubreuilh⁷⁸ nor Waelsh⁷² could confirm this. Cedercreutz,⁷⁹ by means of scarlet red, substantiated all of Pollitzer's findings. Undoubtedly, the fat content varies greatly—a clinical manifestation which has led to the use of the terms senile and seborrheic.

The etiology of these keratotic lesions is still a matter for investigation. Although they are much more common in the aged, they occur often as early as the second decade. The one factor which seems to play an important rôle is light. Bellini⁸⁰ examined 100 old people from the country and found that 42 per cent. had these lesions compared to 13 per cent. in the old persons living in town. Dubreuilh⁸¹ has repeatedly called attention to the significance of exposure to light. In 162 cases of senile keratosis he found 101 were habitually exposed to sun and wind, while 61 had a sedentary occupation. Montgomery⁶⁴ has recently reported a very instructive case in this connection.

Another important factor in the production of these lesions is seborrhea. Most of the investigators have emphasized the hyperkeratosis about the mouth of the sebaceous and sweat follicles. Handford⁷⁶ says the removable crust consists of fatty detritus and epithelial cells. The possible significance of this seborrheal character will be pointed out later.

Grosz and Volk,⁸² in some interesting experiments, have shown that various bacterial products are capable of making the skin locally and

generally more sensitive to the ultraviolet rays. A seborrheic keratosis would seem to furnish a good habitat for various bacteria whose products might sensitize the area. The readiness with which these lesions respond to treatment might suggest some local etiology. In this connection we might recall that Borrell⁸³ in twelve cases of facial carcinoma found the dermodex in the sebaceous follicles. Some of the authors speak of these keratotic lesions as giving rise to rodent ulcer. Judging from the histopathologic findings we would expect a spino-cell growth and my experience has borne this out. These tumors are of a relatively benign type and their course simulates that of rodent ulcer.

It would be an interesting point to determine whether the nevoid type of seborrheic keratosis does not more often give rise to basal cell, and the keratoid variety to spino-cell carcinoma.

Dubreuilh⁸² found in 105 cases of rodent ulcer that only 35 were subject to exposure, and the other 70 were not so exposed.

It would not be proper to leave this question without referring to Montgomery's⁸⁴ observation of the connection between seborrhea of the lower lip and epithelioma, which we feel has not received the attention it deserves. Montgomery does not venture an opinion as to why the lower lip is predisposed to this disease.

Sutton⁸⁵ reports six cases affecting the lower lip and one of the upper. He thinks the important factor is the lack of care of the teeth. It is not apparent to the writer just how conditions in the mouth would affect one lip so much more than the other. The lower lip is undoubtedly more exposed to the light than the upper one, and since light is known to play such an important rôle in the production of seborrheic keratosis and carcinoma, might not the greater exposure of the lower lip account for the greater frequency of these diseases on the lower than on the upper lip?

To account for the greater frequency in men than in women we shall have to assume a summation of irritation, tobacco, light, seborrhea, etc.

ARSENICAL CANCER. The use of arsenic internally over a prolonged period of time is often followed by the formation of keratotic lesions, especially on the palms and soles. These occasionally develop into carcinoma. That this is not frequent is shown by the reports of Wile,⁸⁶ and Mutt and Beattie, and Smith.⁸⁷ The latter observers reported thirty-one cases from the literature, all but five of which occurred on the extremities or the scrotum. In one-half of the cases there were multiple lesions. The upper extremity was affected in two-thirds of the cases, the lower in one-quarter. In only one case was the face affected, which is remarkable when we consider the frequency with

which other hyperkeratotic lesions occur in this region. The growth is always of the spino-cell type, although Weidenfeld⁸⁸ has reported a case having also a basal cell growth over the right clavicle.

It has long been known that arsenic has a special affinity for the skin. It has been demonstrated in the hair and epidermis. Erasmus Wilson pointed out that the keratoses began about the sweat follicles. Possibly the drug is eliminated by the sweat glands thus accounting for the regional occurrence of the carcinoma.

LUPUS CARCINOMA. While this is an uncommon occurrence in the course of lupus vulgaris, it occurs frequently enough to have occasioned a great deal of discussion as to its pathogenesis. Sequeira⁸⁹ says it occurs in 2 per cent. of lupus cases. In 964 cases of the disease in the London Hospital he found 2.87 per cent. were complicated by carcinoma. Bargues⁹⁰ reports six cases and says it occurs in 3 per cent. of the lupus cases. Ashihara⁹¹ collected 125 from the literature and since then Silberstein⁹² was able to collect 116 additional cases.

Why should carcinoma be so frequent in lupus? In five of seven cases of lupus examined, Miyhara⁹³ found atypical epithelial proliferation and he thinks this predisposes to malignancy. We seldom see in ordinary lupus the riotous atypical epithelial proliferation that is so characteristic of blastomycosis, and yet we have only seen one such case that had become carcinomatous, and Bloodgood⁹⁴ has reported one. It might well be that the much longer duration of lupus and deeper scar formation would account for the greater tendency to carcinoma. In all of Sequeira's cases the lupus was over twenty years old. Ashihara found the average was thirty years. Silberstein found it twenty-nine years.

Mendes da Costa,⁹⁵ Bargues,⁹⁰ Walker⁹⁶ and others believed the use of roentgen ray in the treatment favors the development of carcinoma. Spiegler⁹⁷ says that the number of cases has increased since the introduction of the roentgen ray. Coenen⁹⁸ says roentgen-rayed lupus cases represent more than one-half of the cases of roentgen-ray carcinoma.

There has been a great deal of discussion as to whether the carcinoma originates in lupus or in scar tissue. Kembachief⁹⁹ and Bidault¹⁰⁰ hold that it only develops in scar tissue. Eckerman,¹⁰¹ combining the statistics of Bayhas,¹⁰² Nithack,¹⁰³ Steinhauser¹⁰⁴ and Ashihara shows that in 70 per cent. of the cases the carcinoma was supposed to start in lupus tissue. This would seem to be a difficult question to decide.

Differing from lupus itself, lupus carcinoma is more frequent in men than in women, and it is located on the face more frequently than is pure lupus. In Silberstein's⁹² series of 111 cases there were eighteen in which multiple lesions had become malignant.

It is probable that there are several factors which operate to cause the development of carcinoma in lupus vulgaris. They are chronic ulceration, old age, roentgen rays and light rays. As one would expect, the growth is almost always of the spino-cell type.

Lupus erythematosus is very seldom associated with carcinoma although its very frequent location on the carcinomatous area of the face and its long course would lead one to expect a more frequent association. Cases have been reported by Pringle,¹⁰⁵ Reismeyer,¹⁰⁶ Dyer,¹⁰⁷ Stopford Taylor,¹⁰⁸ Wyss¹⁰⁹ and others.

CICATRIX CARCINOMA. Since Marjolin¹¹⁰ first called attention to the occurrence of carcinoma in scar tissues, this origin has become recognized as one of the frequent causes of carcinoma. Aside from lupus, carcinoma in scar tissue is uncommon about the face; this is probably due to the fact that ulcerated conditions about the face usually heal readily.

Theilhaber¹¹¹ has called attention to the infrequency with which carcinoma is found at various sites of scar formation such as the umbilicus, the hymen, and after circumcision. The important factor in cicatrix carcinoma would seem to be that the original lesion be of long duration.

It might be well to take up here the question of carcinoma developing in ulcers of various kinds, no one of which seems to be especially predisposed to malignant change, and the important factor is probably the chronicity and the instability of the resulting scar.

CHEMICAL IRRITATION. One of the most interesting forms of carcinoma is that following the local effect of certain chemical substances such as soot, tar, paraffin, analin, etc. The excellent papers of Schamberg¹¹² and B. F. Davis¹¹³ have covered the subject very completely.

Since Fisher's¹¹⁴ observation that scarlet red oil would cause atypical epithelial proliferation simulating epithelioma, epithelial proliferations as the result of chemical irritation have been studied rather extensively. Because it is possible that these experiments may have some bearing on cutaneous carcinoma, I believe it worth while to consider some of these observations.

Fisher's findings have been substantiated by Stoeber,¹¹⁵ Stahr,¹¹⁶ Jores,¹¹⁷ Griescher,¹¹⁸ Sachs¹¹⁹ and many others. Most of the observers believe the growths start from the hair follicles. Mori¹²⁰ has failed to get a proliferation in the comb of roosters, which he thinks is due to the absence of hair in this organ and hence proves that the proliferation seen in animals originates from these structures. Ichio Haga¹²¹ denies this, for he obtained marked proliferation in the tongue and stomach.

The illustrations of the various authors show epithelial proliferation which simulated squamous cell epithelioma very closely. None of

these proliferations possessed the property of unlimited growth nor were the various transplantation experiments successful.

It has been shown that many substances beside various anilin dyes also cause this proliferation. Wacker and Schmincke¹²² showed that all the substances which were capable of causing this epithelial down-growth were lipoid soluble. They found that rancid oil, oleic acid, skatol and various albuminoid decomposition products caused marked proliferation.

It is possible that these observations of Wacker and Schmincke may have a direct bearing on the cause of the epithelial proliferation of seborrheic keratoses. Might not the fat in these areas be decomposed by ultraviolet rays, or by the bacteria in the crusts and result in products which stimulate the epithelium to proliferate? It is well recognized that seborrheic keratoses are more common in the uncleanly. The keratoses observed on the dorsal surfaces of the hands are much less oily and they are also less apt to become malignant.

Then again might not the cholesterol which is present in the sebum stimulate proliferation? This is a property which this substance is known to possess. One could explain the tar and paraffin carcinoma as a result of the plugging of the sebaceous follicles with decomposition of the retained secretion.

There are various other dermatological conditions which occasionally eventuate in carcinoma.

Cutaneous horns and warts and other forms of benign epithelial proliferation frequently become carcinomatous, often as the result of the chronic irritation of repeated trauma.

Patches of psoriasis very infrequently become carcinomatous. Hartzell¹²³ has collected ten such cases. The fact that the carcinoma in 50 per cent of the cases occurred rather earlier than is usual would tend to confirm Hartzell's suggestion that the malignant change is the result of arsenical treatment.

Epithelioma has been reported following lichen planus, and keratosis follicularis. This latter observation of Wende¹²⁴ remains a curiosity. The disease described by Bowen¹²⁵ and later by Darier¹²⁶ we have been unable to classify to our complete satisfaction. I believe, however, that Heimann's¹²⁷ point is well taken when he objects to the name of precancerous dermatosis given it by Bowen.

That xeroderma pigmentosum practically always eventuates in carcinoma is so well recognized and so little is known of the pathogenesis of the disease that a detailed consideration of the subject can be omitted at this time.

The various dermatological conditions considered in the foregoing are often spoken of as precancerous dermatoses. Heinmann, in a very

able discussion of the subject, believes the use of the term is unjustifiable. Certainly when we consider these dermatoses we see that the only thing they have in common is a period of chronic irritation with prolonged epithelial proliferation, accompanied by varying grades of inflammatory reaction in the corium.

PATHIOLOGY

The pathology of cutaneous carcinoma is somewhat better understood than is the etiology, and yet there are many phases of the subject over which there is considerable controversy.

(1) The question of the point of origin: Does it originate from the rete, basal layer, the various appendages, or from embryonic epithelial rests?

(2) Does the point of origin determine the structure or is this dependent on other factors as well?

(3) What influence have the connective and vascular tissues on the structure of the growth?

(4) Does the etiology differ according to the point of origin?

(5) What influence have these various factors on the clinical appearance and course of the disease?

We shall have to admit that some of these questions have received no consideration, and on none of them is there unanimity of opinion, and yet the correct solution of some must necessarily precede the establishment of a proper classification of these neoplasms.

The subject of the pathology of these growths had reached a stage of somnolence, in which they were considered to belong to one of two classes, either the endotheliomas or the squamous cell carcinomas, the latter supposedly arising from any of the epithelial structures of the skin. Then Krompecher,¹²⁸ by the publication of his epoch-making researches, started a lively discussion which resulted in the abandonment of the term endothelioma and the substitution of the term basal cell carcinoma.

Krompecher's view received general acceptance and a rather sharp line was drawn between the types, both as to their histopathology and possible place of origin.

It must be conceded that epithelioma may start from the epidermis or any of its appendages. It seems, however, that the sebaceous glands are probably the least likely to become malignant.

There are various benign growths which arise in these structures or their "Anlagen." Such for instance are, adenoma sebaceum, sebaceous nevi, presenile sebaceous hypertrophy and rhinophyma. The first two are undoubtedly nevi, the last two are probably examples of

the post-fetal development of sebaceous gland tissue. That such metaplasia of epithelial cells can occur has been shown by Ribbert¹²⁹ and more recently by Kyrle.¹³⁰

It would seem that the fatty metamorphosis which the sebaceous gland cell undergoes tends to prevent it from becoming malignant. Reitmann¹³¹ in his article on sebaceous gland tumors says that true carcinoma originating in a sebaceous gland may occur, but that such an undoubted case has not been described.

The sweat follicles have always been recognized as a probable point of origin for epithelioma, especially of the basal cell type. Those growths in which the epithelial cells occur in the form of cords, often with a central lumen, the so-called cylindroma, have usually been assumed to have originated in these structures. This is a questionable assumption and Ricker and Schwalbe¹³² in their extensive monograph, make the presence of a hyaline basement membrane the criterion which determines the sweat gland origin.

Fordyce,¹³³ who has made a special study of epithelioma, says that in the great majority of cases cutaneous carcinoma takes its origin from the epidermis covering the sheath of the hair follicle. Mallory¹³⁴ says that basal cell carcinoma arises from the hair matrix. Kyrle¹³⁵ describes a case which he thinks proves that basal cell carcinoma can originate from a hair follicle. Borrmann¹³⁶ says that he has never seen carcinomatous change in the hair follicle and he does not believe it occurs.

Thus it is seen, that as far as the appendages are concerned there is a marked difference of opinion as to whether they do give rise to carcinoma. And yet, *a priori*, we must concede that they can. We can recall other epithelial structures such as the liver and kidney in which primary carcinoma is distinctly unusual.

The great source of squamous cell carcinoma would seem to be the surface epithelium. In fact, as Hartzell⁶⁶ has said, in senile keratoses one sees all degrees of epithelial proliferation up to frank epithelioma. We doubt whether any one would undertake to defend the position that roentgen-ray carcinoma, lupus carcinoma, or that arising in scars, originates anywhere except in the surface epithelium.

Just what part of the surface epithelium becomes carcinomatous is a question. Krompecher thought it originated in rete cells, one or two layers above the germinal layer. v. Hanseimann and Ribbert did not think so. Borrmann says that squamous cell carcinoma starts in isolated cell complexes of embryonic origin, located inside the surface epithelium, which for years have lain dormant until stimulated to grow by some influence.

We see no reason why a squamous cell epithelioma should not develop from either the germinal layer or rete cells a few layers above. Certainly one would expect that if a basal cell became malignant its descendants would undergo the usual metamorphosis. In some inflammatory conditions as well as benign growths, we see enormous epithelial proliferation having many of the characteristics which constitute malignancy and in which the usual metamorphosis occurs. Again in these same and other conditions, we see rete cells undergoing rapid proliferation. It seems to us that it could very well be, that squamous cell carcinoma might have two methods of origin; first, malignant change in normally placed epithelium as a result of the various factors considered in the first part of this paper, and second, malignant change in embryonic rests.

BASAL CELL CARCINOMA. Krompecher¹²⁸ held that this type of growth originated from the basal layer of the epidermis or its appendages. Stated briefly, his reasons were that the cells of these growths in their size, shape and staining quality resembled those of the germinal layer. Also in two-thirds of his cases, he was able to demonstrate a connection in the shape of a bridge or cord of cells with the surface epithelium.

Borrmann,¹³⁶ in an extensive and careful study of a large series of early carcinomas by means of serial sections, showed that the so-called basal cell carcinoma began below, and in many cases had no connection with, the basal layer. He also showed that when the connection did occur it was due to secondary fusion. He makes the important point that the oldest part of the growth is the largest, the youngest part is the smallest. Therefore, when we can find a mass of cells with a pointed extension toward the epidermis this extension is of more recent growth than is the larger mass.

The question whether cancer originates directly from the normal structures amid which it arises is important, and as Rous¹³⁷ says, is one of the most debated in pathology. He showed experimentally that apparent transitions occurred between inoculated adenocarcinoma and the epidermis. Liebert¹³⁸ also warns of the care necessary in judging of the union of tumor epithelium with that of the surface. He says secondary union with the surface epithelium is much more common than is thought; especially is this true in the adenoid variety of basal cell growths.

In judging of the site of origin of epitheliomas it is often considered sufficient to demonstrate a junction between the new growth and the epithelium of the surface or appendages. A study of Borrmann's work shows how treacherous such a procedure is.

From his study, Borrmann concludes that the so-called basal cell carcinoma, which he prefers to call corium carcinoma, originates below the basal layer in small, isolated cell complexes of embryonic origin. He believes that the difference in the morphology of these tumors is caused purely by the fetal differentiation stage to which the cells had arrived when they became isolated.

Borrmann's work has not received the indorsement it would seem to deserve and yet it undoubtedly explains so many questions connected with this type of tumor that I feel certain it is destined to receive more consideration than it has thus far.

If we accept Borrmann's views, it is not difficult to explain the marked predilection for the face which these tumors show. McDonagh¹³⁹ has recently called attention to the frequency with which embryonic epithelial masses are found in this region. He speaks of a rodent ulcer as an ulcerating nevus.

After the publication of Borrmann's article, Krompecher¹⁴⁰ modified his views and admitted that the majority of the basal cell tumors originated in fetal rests but a number grew from the basal layer.

Does the point of origin determine the structure? Naturally we would expect this histology of a tumor to vary according to the structure from which it takes its origin. An epithelioma originating from a hair follicle would be expected to have a different structure from one originating from a sweat gland and this again from one originating in the surface epithelium.

Because the arrangement of the cells or method of growth simulates some of the normal structure of the skin, it is often assumed that the tumor originated in that structure. If the cells have a tendency to form long parallel cords, it is thought to have originated from a hair follicle. If the cells grow with the glandlike arrangement it is often assumed to have originated in a sweat or sebaceous gland.

It is not always possible, in any given tumor of the skin, to say in just what structure that tumor originated. There are many factors besides the origin which determine the morphology. Apolant¹⁴¹ says that the virulence of the tumor is a determining factor in its histology. He was able to change the structure, by changing the virulence by means of cold.

When a cell becomes malignant, it loses certain of its characteristics and acquires certain others, among which may be mentioned the power of unlimited growth, either expansive or infiltrative, the tendency to metastasize and the tendency to undergo certain kinds of metamorphosis. These new characteristics are acquired to various degrees and in various combinations.

Werner¹⁴² says loss of normal structure and the property of infiltrative growth depend (1) on proliferative ability; (2) on cohesion of the growing tissue, and (3) on the resistance of the surrounding tissue.

Animal experiments have shown that it is possible to change the structure of a tumor in various ways, for example, from an adenocarcinoma to a solid carcinoma or even to a sarcoma, as was done by Ehrlich, Levine and others, or to change one rich in stroma, to one with a minimum amount, as was done by Apolant.

Von Hanseemann¹⁴³ states that benign tumors gradually pass over to malignant ones. There is no sharp line separating the two types of growths. Different etiologic factors may cause the same tumor or the same stimulus can cause different tumors.

Realizing these facts it is readily understood how difficult it often is to determine the origin of a growth from the histopathology. If we accept Borrmann's view of the origin in undifferentiated cells, we can understand how one part of the tumor may simulate one of the normal structures of the skin and another part may simulate another.

What influence have the connective and vascular tissues on the structure of the growth?

Whether or not we agree with Ribbert that changes in the connective tissue are a necessary precursor of carcinoma, we must admit that this tissue is the host of the cancer cell. Therefore, a difference in the reactivity of the connective tissue must necessarily have an influence on the structure of growth.

Marchand¹⁴⁴ suggested that the overgrowth of other tissues by malignant new growths was probably due to the production of some substance in the new growth which overwhelms the tissues and impairs their resistance. In experimental carcinoma the connective tissue reactivity in animals is seen to vary, and Apolant believes the same is true of man. Krompecher says the connective tissue can affect the epithelial growth, either favor or resist it.

Borrmann says the growth of the carcinoma cells as well as the morphology of the tumor is greatly influenced by the character of the tissues in which it grows.

It would be an interesting point to determine whether the clinical appearance of some of the unusual forms of epithelioma as seen by the dermatologist, such as the morphea-like and cicatrizing types, might not be due to the influence of the connective tissue.

We will not take up the question of the inflammatory reaction in the connective tissue as the result of the epithelial growth. That subject has been well covered by Fordyce, Bonney,¹⁴⁵ Peterson¹⁴⁶ and others.

Does the etiology of the epithelioma differ according to the point of origin or the type of the growth? This is a question that has not received much attention and we feel that a consideration of the subject would show that the etiologic factors causing spino-cell carcinoma are to a certain extent different from those causing the basal cell type. The only author who seems to have considered this question is Adamson.¹⁴⁷ He says squamous cell epithelioma always arises in skin or mucous membrane which has been previously damaged by injury, or which has been the seat of long continued irritation. In rodent ulcer, however, the growths arise not in areas of previous damage, but in areas where benign growths of similar structure and admittedly nevoid nature are known to occur.

It certainly seems strange that of all the external causes of carcinoma of the skin which were considered in the first part of this paper, none of them predisposes to basal cell growth.

The fifth query as to what influence the various questions considered above have on the clinical appearance and course of the disease, it is impossible at the present state of our knowledge to say.

The first step necessary is a comprehensive study of the benign and malignant growths as seen by the dermatologist in an effort to arrive at a simple and adequate classification. May we suggest that this Association might profitably undertake a collective investigation of this subject?

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THE TREATMENT OF CUTANEOUS CANCER *

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NEW YORK

In spite of the fact that we possess reasonably efficient methods in the treatment and control of cutaneous cancer, yet the results on the whole are unsatisfactory. The mortality of malignant cancer is still very high, and there are too many cases of the relatively benign basal cell epithelioma that eventually succeed in completely exhausting the patient.

While the value of our present methods of combating skin cancer is limited, yet if properly employed and at the right time, these methods are capable of producing a complete eradication of the disease. We all hope that some day a specific treatment will be developed, but, until that time arrives, we must do the best we can with our limited means. We have perfected the various technics, and we have learned to recognize that we are badly and often hopelessly handicapped by needless delay; in other words, we admit the necessity of early diagnosis and the immediate institution of adequate treatment. We, as dermatologists, recognize these facts, but many of us fail to properly impress them on the student. Granting that the patient consults a physician in the early stage of cutaneous cancer, there is no scientific reason why the growth should not be immediately recognized and adequately treated. The patient is likely to consult his family physician as soon as he notices a persistent growth in his skin or mucous membrane. The busy physician either assures the patient that it is a benign growth that requires no attention, or he hurriedly applies a superficially acting caustic and, finally, when the true significance of the tumor is recognized, even a radical operation fails to effect a permanent cure. We are all acquainted with such instances. The need of the hour is education. The lay public must be told that we possess adequate means of controlling cancer if the treatment is instituted sufficiently early and that, therefore, a physician must be consulted as soon as a persistent lesion occurs in the skin or the mucosa. The practicing physician can be reached through medical societies, the postgraduate schools and the medical press. We can do no more than this for the practitioner of today. Our main endeavor should be directed toward the undergraduate, for he is the family physician of tomorrow, and if he is

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properly instructed cancer mortality will be markedly reduced in the near future.

The student and, if possible, the physician, should be impressed with the necessity of the early recognition of cutaneous cancer. We should place as much stress on this point as we do regarding the early recognition and immediate treatment of syphilis. Also, and it seems hardly necessary to add, that we should carefully describe the methods to be employed and those to be avoided in the management of the disease. Of course, all teachers of dermatology instruct the students in the diagnosis and treatment of cutaneous cancer, but didactic instruction is not enough. The essential points must be reiterated and emphasized, and supported by frequent demonstration of cases and lantern slides. I desire to emphasize particularly the value of a good set of lantern slides made from perfect photographs, for only in this way can the student become acquainted with every clinical variety of cutaneous cancer and precancerous dermatoses. Furthermore, it is not enough to describe a treatment — the student should see actually performed every step in the technic of the various reliable methods.

Before considering cancer proper I wish to devote a few lines to the forerunners of cancer. While both the basal cell and prickle cell variety of epithelioma may develop in the unaltered skin, they are most commonly preceded by seborrheic, senile and simple keratoses. It is not always possible to distinguish between these types, nor is it always feasible to anticipate the variety of epithelioma that will develop from any one of them. I have seen basal cell epitheliomas follow arsenical keratoses, and a prickle cell growth develop on what was thought to have been a so-called seborrheic keratosis. It would seem, therefore, preferable to consider these keratoses as potentially dangerous — as forerunners of malignant cancer and advise their complete destruction. If the lesion is on the skin, and consists of no more than a clinical thickening of the horny layer, it will suffice to remove the latter with the curet, and then cauterize the base with trichloracetic acid. The action of the acid should not be checked by the addition of water or an alkali. If on the mucosa, or if there is evidence of thickening of the entire epidermis or epithelial proliferation, as manifested by clinical infiltration, it is better to consider the lesion an epithelioma and treat it by one of the methods to be mentioned later. One skin toleration dose of either the roentgen ray or radium will usually permanently cure a precancerous keratosis, especially if the horny layer is first removed. Solid carbon dioxid and fulguration are methods that are reliable in these precancerous keratoses, if properly employed. Roentgen-ray keratoses are very prone to develop into cancer, and the resulting growth is always of a malignant type. These keratoses should be

destroyed as soon as noted and before there is the slightest clinical infiltration. In these instances it is preferable to employ more drastic treatment than in senile and simple keratosis. The same is true of the keratotic lesions seen in xeroderma pigmentosum. Paradoxical as it may seem, the beta and long gamma rays of radium act well in both the roentgen ray and the xeroderma keratoses. Both the roentgen ray and radium are efficacious in the keratoses seen in the so-called farmers' and sailors' skin.

In all types of preëpitheliomatous keratosis the thickened horny layer is secondary to changes in one or more layers of the underlying epidermis, as shown by the histologic studies made by Unna, Pollitzer, Fordyce, Hartzell, Sutton, Bowen, Darier and others. It is also well to bear in mind that Hazen estimates that at least 5 per cent. of the combined simple, senile and seborrheic keratoses develop into malignant cancer. For these reasons, when treating such lesions with caustics, it is advisable to destroy the entire epidermis in and for a little distance around the macroscopic evidence of disease.

It is pretty generally accepted that Paget's disease is a primary precancerous condition and that it must be treated radically. In mammary Paget's, Hazen and others believe it is wise to consider that deep-seated carcinoma is already present, and for this reason they advise removal of the breast and extirpation of the neighboring glands. The writer cured two cases of mammary Paget's disease (one was confirmed by biopsy; the other was not) with two or three intensive doses of the roentgen ray. These patients were treated two and four years ago, and there has been no recurrence. Fordyce and others have obtained similar results in extramammary Paget's disease. Until we know more about this condition and its management it would seem that we might depend on the roentgen ray unless a careful examination reveals indications of carcinoma, when a radical surgical operation would be indicated.

Leukoplakia is an exceedingly unsatisfactory condition to treat. The disease is neither syphilis nor cancer, but it is precancerous, and inasmuch as syphilis and the various forms of local irritation that are supposedly the causative factors, may favor the final development of malignancy, prophylactic measures are strongly indicated. Small patches of leukoplakia can be destroyed with a caustic; not silver nitrate, but a caustic that will destroy the entire epidermis (potassium hydrate, zinc chlorid or better still, the actual cautery). Radium, particularly its beta rays, will cause the disappearance of the affection in most instances, but some cases are very stubborn, and there is a marked tendency toward recurrence. Patients with leukoplakia should be kept under constant observation for the first sign of epithelioma.

Lesions falling under the caption of syringoma, trichoepithelioma, benign cystic epithelioma, etc., seldom show malignant tendencies, and for this reason they can be left untreated. If, however, they are so situated that they are subjected to repeated traumatism, or if they are objectionable from a cosmetic standpoint, they may be removed by excision, by a powerful chemical caustic, or by fulguration. The point is that if they are to be treated they should be completely destroyed. These lesions can be removed with radium or the roentgen ray, but they are recalcitrant to these agents. Electrolysis is clinically efficacious, but some of the proliferated epithelium is likely to remain in or near the scar. The same may be said regarding solid carbon dioxid.

The pigmented mole is another potentially dangerous lesion. According to Hazen, the hairy pigmented mole and the elevated pigmented mole with or without hair seldom undergo malignant degeneration. It is the flat, deeply pigmented mole that is particularly dangerous. It is becoming the consensus of opinion that the pigmented mole should either be left alone or completely destroyed. Pollitzer and others have seen epitheliomas develop on moles that were treated by inadequate methods. Bloodgood has found nevoid cells in the scar after the lesion was removed with solid carbon dioxid, and the same is probably true of treatments such as electrolysis and the use of the milder caustics. Bloodgood advises and Pollitzer insists that if a pigmented mole is to be treated at all it should be removed by a wide excision. Engman prefers the actual cautery, because he believes there is less danger of metastasis. In all except the flat mole, Hazen employs electrolysis for prophylactic and cosmetic purposes, but if there is any evidence of malignancy he advises excision.

RECOGNIZED METHODS OF TREATING CUTANEOUS CANCER

I doubt if I will be severely criticized if the following methods of treatment are omitted without comment: solid carbon dioxid, curetting (without the addition of some other treatment), electrolysis, diathermy, superficially acting caustics such as carbolic acid, silver nitrate, trichloroacetic acid, salicylic acid, internal medication such as arsenic, dietetic and hygienic measures and, finally, the injection of chemicals, serums, vaccines, etc.

Three methods of treatment have received wide recognition and they may, therefore, be considered legitimate means of combating the disease. They are (1) excision, (2) cauterization, and (3) roentgen ray or radium.

Excision.—There is little to be said concerning excision. If the disease can be completely excised, a permanent cure will be the result. Small lesions situated in locations such as the cheek, lip, trunk, penis,

etc., can be removed by the knife, the wound sutured and the resulting scar will be hardly noticeable. In other locations, such as the nose, the inner canthus, the eyelids, etc., the operation is more difficult and the resulting deformity is objectionable. Large and deep-seated lesions in any situation are hard for the surgeon to handle on account of the difficulty of completely removing all the pathologic tissue, and of course such wounds, healing by granulation, aided possibly by skin grafting, produce considerable deformity. One well-known weakness of the method lies in the temptation to effect a good cosmetic result with the consequent retention of malignant cells in or near the scar.

The caustic method consists in the use of chemical agents, actual heat or electricity. Electricity in the form of the high-frequency spark — the fulguration of de Keating Hart, or the desiccation of Clark and Pfahler — is employed, as a rule, only as an adjuvant to some other method, usually the roentgen ray. Its purpose in large lesions is to remove the macroscopic evidence of disease before the roentgen ray is applied. The advocates of this procedure claim a selective action of the spark for pathologic tissue, and also that the resulting inflammatory reaction is exudative in type and that the copious discharge of serum possesses not only a mechanical action, but that it contains chemical substances (toxalbumins) that exert an inhibitory action on the malignant cell. These same factors — selective action, mechanical action and inhibitory action — have been claimed for certain chemical caustics, particularly arsenious acid (Robinson). It is conceivable that a heavy serous discharge might aid in preventing an invasion of the lymphatics, that it might wash out detached cells and that it, to a certain extent, might produce a disintegration of these cells. It is of course well known that an inflammatory reaction is beneficial in many cutaneous affections, and it may be that in addition to increased circulation, phagocytosis, lymphocytic infiltration and the production of certain chemical or serologic products, there is a substance that exerts a specific action on the malignant cell. This, however, is purely speculative, as there is no substantial evidence on which such a theory can be based. As far as concerns the selective action of any caustic, my interpretation would be that the substance acts more vigorously on diseased tissue than on normal tissue, the same as does the curet. While it is difficult to concede a selective action of a caustic on malignant tissue in the sense of that possessed by the roentgen ray, there is nevertheless a difference in this respect with the various caustics. For instance, both the acid nitrate of mercury and arsenious acid produce less destruction of the healthy tissue than do zinc chlorid and sulphuric acid. Now, to return to the question of fulguration. The method is painful and the pain is not materially lessened by local anesthesia.

Furthermore, a powerful exciting apparatus is necessary, and it is not a procedure that is in general use. Nevertheless, the writer has seen some very excellent results under general anesthesia in apparently hopeless cases when this method has been combined with intensive roentgenization. It is supposedly superior to the knife or the curet because it does not open up the lymphatic and blood vessels; the tendency, therefore, is to inhibit rather than favor metastasis. Whether or not the method is superior or even equal to the actual cautery is an open question.

Cauterization.—We have now to consider the chemical caustics. The method that is most popular at the present moment is the one devised and advocated by Sherwell, namely, thorough curettage and the prolonged application of acid nitrate of mercury (liquor hydrargyri nitratis). Sherwell's technic, if properly applied, gives excellent results. It is especially applicable to lesions that, because of their size, depth or location, cannot be removed by excision and, also, lesions that have failed to respond to roentgen ray or radium. No special skill nor experience is required; all that is necessary is thoroughness. In many instances a local anesthesia combined with the hypodermatic administration of morphin will suffice, but in extensive lesions a general anesthetic is necessary.

Arsenious acid (arsenic paste) has been particularly recommended by Robinson, and the method is reliable if properly employed. Considerable experience is necessary, however, before one can determine, in a given case, the precise strength of the paste and the length of time it should be allowed to act. Robinson does not advocate the use of the curet excepting to remove the overlying epidermis so that the arsenic can come in contact with the pathologic tissue.

Anyone who has used these caustics will acknowledge that their action on normal tissue is insignificant as compared with the action on the disease, and for this reason it is possible that these chemicals are able to follow, to a certain extent, the strands of infiltrating malignant cells into normal tissue and destroy them, without producing extensive destruction of the surrounding structures. This action may also explain why the resulting scar is so surprisingly good from a cosmetic standpoint. The inflammatory reaction from arsenious acid is decidedly exudative, and Robinson places a great deal of importance on this fact. The reaction following the application of acid nitrate of mercury is edematous, but there is not a particularly marked serous exudate. Both caustics are very easily controlled.

Chlorid of zinc is another caustic that has received a certain amount of attention and favor among dermatologists, but it is not popular because it is very destructive, not selective, its action is more difficult

to control, it produces a dry necrosis and the resulting scar is not as esthetic as that following the application of arsenic and acid nitrate of mercury. Potassium hydrate is objectionable because it is not selective. Sulphuric acid and similar caustics are too powerful, too destructive, not selective and difficult to control.

Roentgen Ray and Radium.—While the beta rays of radium and perhaps the very long gamma rays will occasionally overcome a lesion that will not respond to the roentgen ray, broadly speaking the action of the two agents on cutaneous cancer is about the same. It is not within the domain of this communication to explain the selective action of these agents, nor to describe the technic of their use. Suffice it to say, for the moment, that roentgen ray or radium, properly employed, constitutes a reliable and justifiable method of combating selected cases of cutaneous cancer. The cosmetic results are superior to those of any other method. After the cure of a nodular lesion which is covered with normal skin it may be impossible to locate the former site of the disease. In ulcerated lesions the difference is not so marked, because the destruction of tissue will necessarily leave a cicatrix. In this connection it should be borne in mind that the cosmetic results are at times inferior to those of other methods — the author refers to the wrinkling and telangiectasia that occasionally follow roentgen ray and radium therapy. The absence of pain and the saving of time and inconvenience to the patient are factors in favor of roentgen ray or radium treatment. These agents are particularly indicated in lesions situated in locations such as the inner canthus, the eyelids and the nasal alæ. The fact that serious injury may follow the injudicious use of these agents must not be overlooked. This statement refers to the development of a third degree radiodermatitis which may never heal, or if it does heal, the resulting scar may be as troublesome and as dangerous as the original lesion.

The best results are obtained by intensive treatment. By intensive treatment I mean the application of a skin toleration dose, either at one sitting or in a few treatments, preferably the former. While a few men, particularly Pusey, can show admirable statistics with the fractional method, the majority of roentgenologists admit that fractional doses are not suitable for the treatment of cutaneous cancer. Incidentally, the advocates of the fractional technic are really employing intensive treatment, for they produce an erythema or cure the lesion in a few applications — possibly from four to ten or twelve treatments. This is quite different from the technic that calls for from 25 to 150 treatments and which is likely to stimulate rather than destroy the growth. I prefer the administration of full skin toleration doses at one sitting at intervals of four weeks for the following reasons: 1. The

results are as good, if not better, than when the fractional method is employed, even when the latter is administered in accordance with modern ideas. 2. There is a great saving of time to the patient and to the operator. 3. The dose can be measured with an accuracy that meets practical requirements. 4. There is very little if any stimulation. 5. It is the consensus of opinion that the intensive dose in cancer is safe — idiosyncrasy is of very little importance.

One of the chief objections to the fractional method is that the operator does not carefully measure or estimate the dose, so that the personal equation or the standardization of a personal technic plays an important rôle. Instead of anticipating a certain effect from a definite amount of ray, the lesion is treated until it is cured or until it is plainly seen that such treatment is accomplishing more harm than good. On the other hand, the advocate of the intensive roentgen-ray method applies a given quantity of ray — say H 8 B 10 — which we will call the skin toleration dose. If this treatment is not followed by a marked retrogression in three or four weeks, some other method is advised. In other words, improvement should follow a definite amount of ray administered at one sitting, and if this improvement is not noted it means that the lesion in all probability is not going to respond to roentgenization and some other treatment is substituted. In this way no valuable time is lost, nor is the lesion going to be made more recalcitrant by a continuation of treatment that is accomplishing no good and which may prove harmful.

What has been said regarding the roentgen ray is also true of radium, only that with this agent the estimation of the dose is determined entirely by time and the amount of radium element contained in the applicator.

It seems hardly necessary to add that the three methods outlined should be administered only by one who thoroughly understands the seriousness of the disease and who is well acquainted with the advantages and limitations of each method.

TYPES OF CUTANEOUS CANCER AND SELECTION OF METHOD OF TREATMENT

Now let us consider the various types of skin cancer and discuss them in relation to the three methods of treatment already described. Epithelioma can first be divided into (*a*) the basal cell, and (*b*) the prickle or squamous cell types.

Basal Cell Epithelioma.—In this type we have no fear of metastasis, and as the lesions are of slow growth there is no particular hurry, and any method that will remove all the pathologic epithelia will naturally effect a permanent cure. Any one of the three methods outlined may

be employed and apparently with equally good results so far as a permanent cure is concerned. Statistics do not favor any particular method. Hazen, by combining his own cases with those of Bloodgood, collected a series of 178 basal cell epitheliomas which were removed by excision. He gives a percentage of permanent cures of eighty-six in unselected cases, while if the practically hopeless cases are omitted, 93 per cent. were permanently cured. Sherwell thinks that at least 90 per cent. of his acid nitrate of mercury cases were permanently cured. These figures, however, are not based on carefully compiled statistics. On the other hand, Sherwell's cases were unselected, and many of them were practically hopeless and some of the lesions were probably of the prickle cell variety, as Sherwell does not in his writings differentiate between the two types, excepting that he recognizes the futility of treating cases by this method when glandular involvement is manifest.

We are all acquainted with the excellent results obtained by Robinson with the arsenic paste. He selected his cases, but he treated prickle cell growths if the lesions were small and unassociated with palpable glands. Unfortunately, Robinson has never published statistics, but in a personal interview he placed his probable percentage of permanent cures at about ninety-two.

Regarding the roentgen ray, I can record a study of 268 unselected cases of basal cell epithelioma treated by the intensive method. The percentage of permanent cures was eighty-five. This can be increased to 90 per cent. by including the relapses that were cured a second time by the same method and which remained well for a number of years. If only the selected cases are recorded, the percentage of permanent cures would be above ninety-five.

While there are no available radium statistics it is probable that the results would be about the same as with the roentgen ray.

It will be seen, then, that so far as statistics are concerned there is little choice between the three methods. It is, therefore, a question of selecting the proper treatment for the individual case. I believe, for reasons already enumerated, that the roentgen ray or radium constitutes the method of election in every untreated case of basal cell epithelioma, unless the lesion is very extensive and deep seated. I advocate at least one intensive application, and if this is followed by a marked retrogression, the treatment is continued, if not, one of the two remaining methods is advised. If the lesion is deep-seated, indurated or markedly nodular, it is at first curetted, because in studying my statistics, I found that 50 per cent. of the curetted cases were cured in one treatment as against 28 per cent. in the cases that were not curetted. In very extensive lesions it is advantageous to combine Sherwell's

method, fulguration, or the actual cautery with intensive roentgenization or radium therapy.

When a lesion refuses to retrogress under the influence of radium or the roentgen ray, or if these agents cannot be properly applied, I favor excision if the growth is small and suitably situated, otherwise Sherwell's method is preferred.

Squamous Cell Epithelioma.—In this type of epithelioma we are dealing with a dangerous lesion; one that may grow rapidly and in which metastasis is likely to occur in the early stages of evolution. In the treatment of malignant cutaneous cancer there is but one desideratum—its early and complete destruction. There should be no consideration for the comfort of the patient, for his convenience, for cosmetic result, etc. As a rule, the experienced clinician has no difficulty in differentiating between the basal and the squamous cell types of cutaneous epithelioma, but this is not always possible. If there is the slightest doubt about the diagnosis it is preferable to consider the lesion as malignant and treat it accordingly. There is a growing conviction that it is unwise to remove a piece of tissue from a suspected malignant epithelioma for microscopic study because the incision may favor metastasis by opening the lymphatic channels. For the same reason the use of the curet and incisions for the insertion of radium are being condemned. Excision certainly has the advantage of allowing a microscopic study, and right here I desire to emphatically state that the excision of every malignant neoplasm should be followed by a study of serial sections, not only to determine the particular type, but to see if the entire growth has been removed.

It seems to be the general consensus of opinion that every squamous cell epithelioma that can be completely excised should be removed in this manner. Unfortunately, one cannot be certain at the time of operation whether or not metastasis has occurred, and for this reason many surgeons advise not only the removal of the lesion, but of the neighboring glands as well—in other words, a radical operation in every case. This seems like very drastic advice, but statistics warrant it.

It is a fact that both radium and the roentgen ray will permanently cure a very young malignant cutaneous tumor with as much certainty as will any other method, and if the lesion is small and without induration, such treatment is permissible. On the other hand, if the growth is indurated, deep or well advanced, these agents, while occasionally producing the desired result, are too unreliable to be used in any but inoperable cases. The mere fact, however, that radium and the roentgen ray are capable of exerting a certain amount of influence should warrant their use as adjuvants to other methods. It would seem advisable, for instance, in case of excision, to apply two or three inten-

sive, cross-fire doses to the excised area and also to the neighboring lymphatic glands, whether or not the latter have been removed.

Sherwell's technic is objectionable on account of the curettage. Furthermore, we have no statistics of either this method or of the arsenic paste method with which to compare with those of the surgeons. As far as small local lesions are concerned, either of these technics are likely to effect a permanent cure. It is not a question of local relapse, however; it is a question of metastasis. The advocates of fulguration and of the arsenic paste aver that the copious serous exudate militates against this possibility, but as yet they have offered no statistics to prove it.

Without entering into a further discussion, the treatment of malignant cutaneous epithelioma might be outlined about as follows:

1. If the lesion is in the earliest stages of evolution a local cure may be expected as a result of adequate treatment with arsenic paste, actual cautery, roentgen ray or radium, fulguration and excision. It is advisable even in these early cases to apply the roentgen ray to the treated area and the neighboring lymphatics when the lesion has been destroyed by some agent other than radium or the roentgen ray. Speaking comparatively of the roentgen ray and radium, there are instances when the latter is of greater value, namely, in roentgen-ray cancer and the growths that occur in xeroderma pigmentosum. Radium is also preferable in epitheliomas developing on leukoplakia, not only on account of the location, but because the results are superior.

2. If the growth is advanced beyond the very early stages it should be removed by excision and the roentgen ray applied as a prophylactic agent as already outlined.

3. If, for various reasons, the lesion cannot be excised it can be removed by the actual cautery or with arsenical paste and the roentgen ray used as a prophylactic.

4. Finally, there are cases in which, on account of certain complications and difficulties, none of these measures can be utilized. In such instances we can resort to Sherwell's method.

Theoretically the roentgen ray should be of value as a prophylactic, but there are no statistics on which to estimate its practical value for this purpose. I have seen it fail in cases that were considered particularly favorable. On the other hand, it has succeeded when the outcome was very doubtful. The best roentgenologists of the world are convinced that it is of real value as a postoperative procedure, and also that it is of value in inoperable cases, and for these reasons it is entitled to a thorough trial.

Malignant cutaneous cancer, secondary to a subcutaneous or visceral carcinoma, is usually multiple, and the original lesion is, as a rule,

inoperable. These cutaneous lesions will ordinarily disappear under the influence of the roentgen ray or radium.

SARCOMA

In this growth, as in epithelioma, there are different grades of malignancy, and the success of treatment will naturally depend largely on the type. The greatest danger in sarcoma is the tendency to early metastasis. For this reason prophylaxis is of the utmost importance, that is, the complete destruction of presarcomatous lesions. With the exception of Kaposi's sarcoma and multiple sarcomas, it is the general consensus of opinion that a sarcomatous lesion should be removed, if possible, by a wide excision or with the actual cautery. In addition, I would have the roentgen ray applied to the site of the lesion and to the neighboring glands as a prophylactic. The excellent results obtained by Wickham with radium in the various types of sarcoma and by Pfahler and others with the roentgen ray, would warrant the use of these agents in lesions that cannot be excised. Some of the best therapeutic results obtained by me have been in cases of sarcomas treated with radium and the roentgen ray. None of these lesions could have been excised, but some of them could have been destroyed with the actual cautery. However, the patients and the consulting physicians decided against surgical intervention. One patient was a woman of 70 who had a vegetating melanoma of the forehead. The lesion was as large as an infant's fist. It entirely disappeared under the combined influence of radium and the roentgen ray, and there has been no recurrence in a period of two and one-half years. Another somewhat similar case was a nurse who had a slightly infiltrated melanoma of the forehead, the size of a 50 cent piece, with numerous outlying satellites. These disappeared under roentgen-ray treatment, and the patient is well today after a period of three years. Another patient was a girl of about 20, who had a cutaneous sarcoma of the entire side of the face. The lesion entirely disappeared as a result of two intensive roentgen-ray treatments. The patient died about a year later of pulmonary tuberculosis. Naturally, one might consider, here, the possibility of sarcoma of the lungs, but this patient was phthisical and the sputum contained large numbers of tubercle bacilli. The face lesion was diagnosed by microscopic examination of excised tissue. I have obtained similar results in multiple sarcomas, the Spiegler-Fendt type of sarcoid, Kaposi's sarcoma and sarcomas of unknown type. I desire it to be understood that I do not advocate the use of the roentgen ray or of radium in operable sarcoma, excepting as a prophylactic after surgical operations, but I do believe that these agents should be employed in lesions that for any reason cannot be handled by a surgeon.

REPORT OF A CASE OF DARIER'S DISEASE (KERATOSIS FOLLICULARIS)

GIVING THE RESULTS FROM ROENTGEN-RAY TREATMENT WITH THE
COOLIDGE TUBE *

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OMAHA

The occurrence of keratosis follicularis is not as rare as originally thought. Unquestionably many cases remain unrecognized. The pathology has been thoroughly investigated by Robinson, Wende, Lieberthal, Mook and others in this country and little can be added that would be new and of interest in this direction. The object of this paper is to report a case of Darier's disease with some unusual clinical features and also the results of roentgen-ray treatment with the Coolidge tube.

Scheer states that his case of Darier's disease of one month's standing was of the shortest duration recorded in the literature. The case which I have under observation started, according to the patient's statement, three months ago, and since that time has involved practically the whole body and shows changes such as would only be expected after many years' duration.

REPORT OF CASE

W. B. E., aged 39 years, was born in Sweden and is employed in the stock yards. He had never had any serious disease. The family history is negative. His habits are temperate excepting excessive smoking of cigarets. He stated that his skin was always dry and that he never perspired freely. He is muscular and well nourished. The present eruption was first noticed during October, 1916. It began on his palms which became itchy as soon as they were warm. The eruption then appeared on the feet and gradually spread over the whole body affecting the face last. The itching is severe at times. Present Condition: The scalp is covered with thick scales, the skin underneath is dry and red. The hair is lusterless and thin. Face: The skin is thickened, with the natural folds exaggerated, erythematous and covered with fine, bran-like scales. Considerable burning is complained of. Body: The entire surface is involved and there is not a normal appearance at any point. Some portions are hyperemic, diffusely infiltrated, rough and scaly, others are covered with more or less extensive patches of closely aggregated, discrete, minute, yellowish-brown, pointed, firm papules, resembling a nutmeg grater. Many of these papules show horny plugs protruding from the central openings. The palms

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and the soles are thickened, covered with large, partly exfoliating, partly tightly adherent scales. Painful fissures are present in the natural folds. The nails of both the feet and hands are greatly hypertrophied, brittle and thickened by subungual mortar-like masses. This condition of the palms is somewhat different from other cases reported, in which the exfoliation is not mentioned as a prominent feature, but weight is laid rather on an even thickness with depressions and umbilications.

HISTCPTHOLOGY

A section of the skin was taken from the exterior surface of the left upper arm, and after fixation in formalin, was frozen and stained



Fig. 1.—Keratosis follicularis. The disease began on the palms and gradually spread over the whole body, including the scalp.

with hematoxylin and eosin. The horny layer appeared thickened throughout, forming a network of densely arranged lamellæ. Nodules or horny plugs in some instances extended well down into the follicles, in others they seemed confined to the uppermost layers in a cup-shaped excavation formed by the overlapping of the surrounding rete. The rete, apparently normal in some places, was much distorted in others; the papillae were elongated and almost obliterated along the sides of the plugs. Beneath a large, deep-seated plug the rete cells were greatly

flattened out, having a stratified appearance. Many rete cells in different localities, independent of the plugs, showed vacuolization. Their walls stained sharply. The lower border of the rete was in many places badly defined and extended into the corium. Considerable cell-infiltration was observed throughout the corium, especially marked below the rete and around the follicles and gland ducts. The connective tissue of the corium seemed normal.

TREATMENT

Practically all reports on the treatment of these cases give the roentgen ray the first and only place for any relief. The majority of

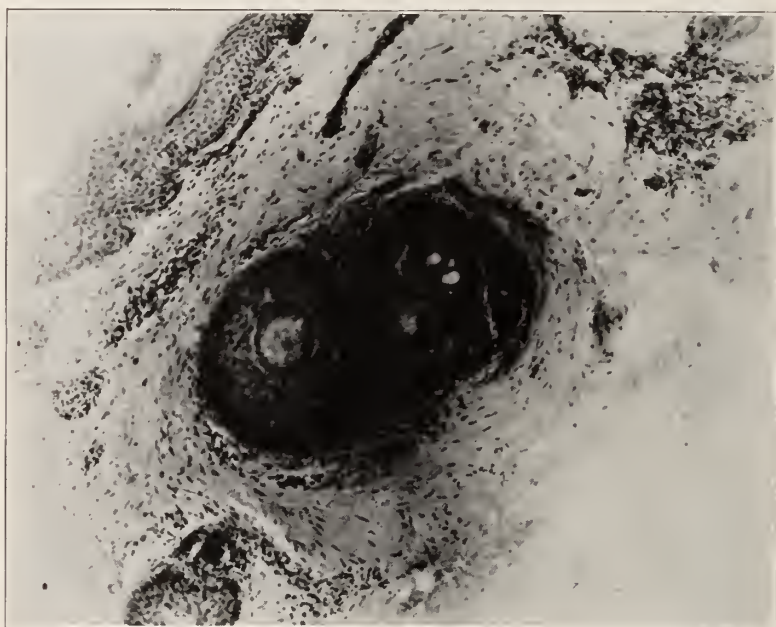


Fig. 2.—A deeper section of the follicles, showing the rete cells flattened out and stratified.

dermatologists are using the roentgen rays in an empirical manner, and while they have achieved very good results in this way, the method has many drawbacks. It does not allow others to follow their procedure to get the same results, and necessitates individual experimentation. The use of the roentgen rays in cutaneous work as published in textbooks and monographs is, with few exceptions, described in a vague manner. When looking up the literature on the treatment of Darier's disease I found it mentioned like this: "He was given X-ray treatment for a few weeks and was considerably improved." Or, "Treatment with X-ray produced marked improvement." It might be

inferred from this that all roentgen-ray treatment of different skin diseases is given in practically the same length of time, the same dosage and with the same penetration. The pathologic conditions and the involvement of different tissues did not seem to influence the selection of the rays. The disadvantages of the gas tubes must be blamed for the foregoing objections. Their vacuum changes constantly, and with it the quality and quantity of the rays, so that it is difficult to duplicate an exposure which has been found effective. MacKee has done pioneer work in putting roentgen-ray therapy on a scientific basis, but his method is too complicated to be followed generally without an extensive outfit and plenty of assistance. With the advent of the Coolidge

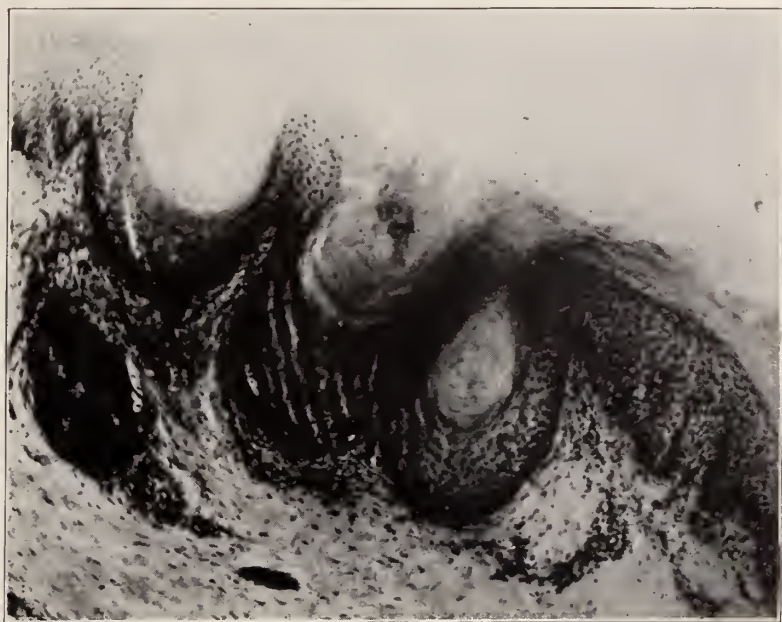


Fig. 3.—Horny plugs in the follicles, which extend downward and distort or obliterate the papillae and rete.

tube, the technic has been simplified a great deal. We are now able to standardize our treatments and repeat them over and over again. Whatever errors occur in the reading of the color of the pastilles, as used in the different radiometers, are negligible. Filtration should always be used with the rays from a Coolidge tube even in superficial conditions. The thickness of the aluminum filters is selected commensurate with the depth of penetration wanted, but according to Pfahler the absorbing value of the aluminum filters does not correspond progressively with the increased thickness, so that the first millimeter absorbs almost as much as the next two. For this reason the danger

of burns can be considerably reduced without the loss of efficient rays. A 5-inch spark-gap transformer allows a penetration of 2 inches in depth or more, and is sufficiently powerful for all cutaneous therapy.

The choice of the quality and quantity of the roentgen rays in the treatment of my case of Darier's disease was based on the consideration of the pathologic conditions present in this affection. This condition being mainly a hyperkeratosis of the pilosebaceous and sweat-duct orifices with secondary cellular infiltration and changes in the

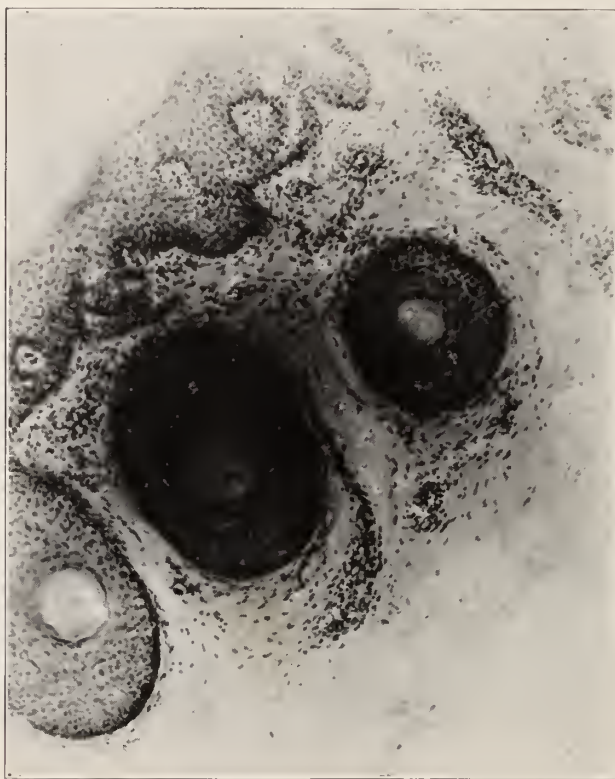


Fig. 4.—Section of the horny plugs situated deeper in the follicles.

prickle cells. I thought it advisable to use strong, deep rays within the erythema limit to reach the deeper structures. The exposures were given to different parts of the body, first on alternate days, later twice a week. The face, palms and soles were given most frequent treatments. The average dosage were rays registering 4 milliamperes, through a 1 millimeter aluminum filter, at 8 inches distance, with a 5-inch spark-gap for five minutes, representing about two-thirds of a Hampson erythema dose. Erythema was produced only once, after the first exposure of the back. Immediate benefit was experienced in

the relief of the itching. The skin gradually became softer and smoother, and the patient, as he stated himself, had more sensation than since the beginning of the skin affection. The thickened epidermis of the palms and soles became loosened and was gradually exfoliated. The nails became softer and were easier to be taken care of. The keratotic papules on the body flattened and finally disappeared with branny scaling. At the writing of this report, three months after the roentgen-ray treatment was started, the patient is greatly improved and a diagnosis of his original trouble would be difficult. No other treatment besides the roentgen-ray exposures was employed, excepting frequent alkaline baths and inunctions with indifferent ointments.

DISCUSSION

DR. ZEISLER asked if the reader of the paper had mentioned the condition of the scalp.

DR. SCHALEK replied, Yes. The scalp was covered by thick masses of scales.

DR. MACKEE called attention to several articles on the program, the titles of which led one to believe that the results were due not to the roentgen ray, but to some peculiar quality associated with the Coolidge tube. He said that the Coolidge tube represented a great advance in roentgenologic technic. The main practical difference between the Coolidge and the gas tube was in the fact that the former would run on any length of spark gap and any reasonable amount of current for any length of time. The therapeutic effect of the ray from the Coolidge tube was, however, exactly the same as that from the old-fashioned gas tube.

He asked Dr. Schalek on what he based his diagnosis of Darier's disease. The microphotographs showed an ordinary follicular keratosis and Dr. Schalek did not mention the presence of dyskeratosis or of the so-called psorosperms; further, he was under the impression that these two pathognomonic features were present even in the very early stages of the affection.

DR. SCHALEK replied, in answer to the remarks made by Dr. MacKee, that he did not claim that the Coolidge tube did anything that any other tube could not have done as well. He called attention to the fact that now that roentgen-ray treatment of skin diseases was on a scientific basis, we could use the rays to better advantage. He also stated that he thought the case was one of Darier's disease in spite of the absence of the psorosperms. They were probably absent because of the short duration of the disease.

Society Transactions

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, April 24, 1917

JAMES C. JOHNSTON, M.D., *President*

NEVUS PILOSUS. PRESENTED BY DR. SHERWELL

The patient, Ed. S., aged 2 years, was brought to the office on April 16, with a marked cosmetic deformity. The entire scapular region and shoulder, and the right upper arm nearly as far as the elbow joint were occupied by a hairy mole, the hair on the upper part of the arm being 2 or 3 inches long. The mole was congenital, and the hair growth had simply increased *pari passu* with age. The mother gave no history of shock—physical, mental, or moral; her gravid condition was in every way normal, and her parturition equally so. In the speaker's opinion, no form of mechanical epilation or use of rhusmas, etc., would be effective, but he desired the opinion of the Society on this point, especially as to the possibility of radium and roentgen-ray treatment being of any benefit in after years. The patient lived in a country town in New York at a distance from the city, and the parents were in very moderate circumstances.

DISCUSSION

DR. CLARK thought it was best to leave the case alone, simply cutting or shaving the hair as necessary. When the child was older, two or three years of treatment with CO₂ snow or radium might possibly relieve it.

DR. WINFIELD thought that good results might be obtained with snow if the patient lived where the nevus could be treated regularly for some time.

DR. WHITEHOUSE thought it would be better to defer any treatment until the patient was older.

DR. MACKEE thought it was not a suitable case for roentgen-ray treatment. The roentgen-ray treatment would remove the hair, but would have little or no effect on the pigmentation, and even the removal of the hair might lead to disagreeable sequelae later in life. He could suggest nothing better than a plastic operation or CO₂ snow, but with such a big area the CO₂ treatment would be quite extensive. He was inclined to think that a plastic operation would be the best way to remove the condition.

DR. TRIMBLE thought that the condition had best be let alone. The child was a boy, and in that location the lesion would practically never be seen. In his opinion the CO₂ snow would be the best treatment, but it would require over two or three years.

DR. POTTER agreed with Dr. Trimble. If the patient wanted anything done later, it could be tried. He believed that carbon dioxide snow would be the method likely to give the best results.

CASE FOR DIAGNOSIS. PRESENTED BY DR. CLARK

The patient, Miss B., aged 23, was born in the United States. She was well and strong until several years ago when, after exposure at the San Francisco fire, she had rheumatism for several months. During that period and for a while after, she took hypnotic drugs, among them sodium bromid. She had not, however, taken any drugs for over two years before the eruption broke out. Two years previous to the present examination a rash that formed small

nodules broke out across the shoulders. The eruption spread to the body and extensor surfaces of the arms and legs. It was very itchy from the first. The lesions would last two or three months—the patient stated that they oozed blood from time to time and would finally heal after quite a severe, thick stringy bleeding, leaving a pigmentation but no scarring. Eighteen months ago the patient had chills and fevers, and was in bad health for several months. Of late the lesions had been fewer and old lesions had tended to disappear and the itching to cease, after painting them with iodine. For the past ten days the patient had been having chilly sensations again.

When first seen, a few days previously, the patient presented many pigmented stains on the body and extensor surfaces of the arms and legs, with many scattered, flat nodules, from pea to bean size. Some of the nodules were moist on the top, and others were slightly crusted. The eruption was most pronounced on the hips and thighs. The patient had tried many lines of treatment, among them, a vegetable diet for many months at a time, without any apparent effect on the lesions. She looked well and apparently was otherwise in good health. The urine and Wassermann tests were negative. The differential blood count revealed: Polynuclears, 40 per cent.; small lymphocytes, 43 per cent.; large lymphocytes, 10 per cent., and eosinophils, 1 per cent.

DERMATITIS ACTINICA. PRESENTED BY DR. TRIMBLE

The patient was a woman, aged 55. Her breast had been removed for carcinoma, seventeen years ago. She was advised at that time to have roentgen-ray treatment and a great many exposures were given (probably about fifty) during a period of a year. After the treatment was stopped, from time to time telangiectases appeared. The condition as presented covered the upper right quadrant of the body. Over the whole area, front and back, were myriads of telangiectases, keratoses, etc. The skin was atrophied and broke down very easily.

DISCUSSION

DR. FORDYCE said that the result was a very unfortunate one, and further remarked that the profession still needed much instruction in the correct use of the roentgen rays.

DR. MACKEE said that the case was presented to show the marked roentgen-ray sequelae following a roentgen-ray dermatitis. There was never any ulceration, and while the history was not very clear there were probably repeated eruptions or it may have lasted for a long while—perhaps several months. In the old days of fractional doses, the treatment was continued until an eruption appeared. It was interesting to see such a deformity following that type of dermatitis. The condition now developing was certainly a preepitheliomatous variety, and it would undoubtedly develop into a roentgen-ray cancer. A telangiectasis of that type was liable to follow a single attack of erythema; and while one was justified in producing an erythema while treating cancer, it was not justifiable to produce an erythema in the medullary tissue. However, from a single erythema one would not expect to get atrophy or keratosis, or epithelioma, though one might get a very disfiguring condition. The roentgen ray should not be used for a mild acne, psoriasis, etc.

DR. SHERWELL said he had seen a case of epithelioma produced by a light or seemingly light application of the roentgen ray, used over the pubis for possible stone in the bladder—the exposed area being the size of a dinner or dessert plate. The patient passed blood in small quantities with the urine. There were not more than two exposures, given by a neighboring physician. The patient was one of the best known civil engineers in subway construction, and had been under high air pressure a good deal. He had the characteristic radiating telangiectases, with a distinct epithelioma in the center. The speaker said he had curetted the tumor and cauterized it in the usual manner. That was twelve or fourteen years ago, and there had been no recurrence, though

the scar and telangiectasis remained. It had taken a long time for recovery from the roentgen-ray burn.

DR. TRIMBLE said the case was presented to show what happened years ago, before much was known about the roentgen ray. It seemed probable that epitheliomas would develop in certain areas. The condition in front, where it seemed to be breaking down, was not there when the patient was seen two months before.

CASE FOR DIAGNOSIS. PRESENTED BY DR. TRIMBLE FOR DR. HALPERIN

The patient was a married man, aged 27. His previous history was negative except for an attack of erysipelas in November, 1916. The present condition began in February, 1917, with an outbreak in the groin. This was followed by the development of several lesions on the abdomen and chest, then on the scalp and the mucous membrane of the mouth, the tongue and the lips. The lesions in the groin and on the scalp were of a vegetative and pustular nature. The lesions in the groin disappeared, and the scalp condition had improved on the application of antiseptic ointments and injections of staphylococcus vaccine, but a recurrence had taken place. At the time of presentation the patient had numerous pustular and vegetating lesions on the scalp, several dry lesions on the trunk, red patches in the mouth and on the tongue, and crusted lesions on the lips.

DISCUSSION

DR. POTTER said it seemed to be a staphylococcus infection. The condition in the mouth did not appear to be the same as the others, but resembled more the ulcerative lesions in the mouth, due to streptococcus.

DR. KINGSBURY thought it looked like a beginning pemphigus. The conditions in the glands suggested that disease.

DR. FORDYCE said that one should bear in mind the possible diagnosis of pemphigus vegetans. The long duration of the disease, the loss of weight and the cachexia suggested it. He did not recall ever having seen such pemphigus of the scalp, but there was no logical reason why it should not appear there. The presence of lesions in the mouth was seldom or never seen in staphylococcic or streptococcic infections.

DR. HELMANN agreed with the diagnosis of pemphigus vegetans. He had seen a similar case on Dr. Goldenberg's service at Mount Sinai Hospital, excepting that the lesions were not so severe.

DR. WINFIELD said that the mouth lesions looked like pemphigus vegetans, but the lesions on the skin looked like vegetating dermatitis.

DR. WHITEHOUSE agreed with the diagnosis of pemphigus vegetans on the general physical condition and the condition of the throat.

DR. MACKEE suggested a search for the point of entrance of the infection, and told of a case in which the infection started on a woman's chest and spread to other parts of the body. A diagnosis of mild pemphigus was made, and she was treated for several months. Finally two abscesses were located at the roots of the teeth. Two teeth were removed, and the woman had no more lesions. Whether that was a mere coincidence or whether the abscesses formed the etiologic factor could not be definitely determined, but it would seem as though they were.

DR. TRIMBLE said that Dr. Halperin's tentative diagnosis was dermatitis vegetans. That was on the basis of the rapid healing of the former lesions in the groin. When he first saw the patient he too thought of pemphigus vegetans, basing that diagnosis on the mouth lesions. He had never seen that condition on the scalp, but the lesions resembled that disease.

CASE FOR DIAGNOSIS (DERMATITIS HERPETIFORMIS?). PRESENTED BY DR. TRIMBLE

The patient was a man, aged 45. For six months he had had a papulo-pustular eruption on the backs of the forearms and anterior aspects of the knees and legs. Most of the lesions were papular, although pustules could be occasionally observed. The patient complained of severe itching. He had had no previous attack. When first seen the pustules outnumbered the papules, but now the reverse was the case. He had been treated for a month, with very little improvement.

DISCUSSION

DR. LANE thought it was a staphylococcus folliculitis—an impetigo.

DR. WISE agreed with Dr. Lane.

DR. FORDYCE thought the case was one of staphylococcus folliculitis.

DR. TRIMBLE said that staphylococcus folliculitis was his first diagnosis but that he was now somewhat in doubt about it. The case looked as it did when he first saw it, having more of the small superficial pustules, like impetigo; the patient, however, had been treated with various antiseptic ointments and had also had two or three injections of staphylococcic vaccine without any benefit; accordingly he had become doubtful of the diagnosis, but would persist with the treatment a little longer.

ERYTHEMA MACULATUM PERSTANS. PRESENTED BY DR. WISE FOR DR. FORDYCE

The patient, a young married woman, had been presented before the last meeting of the Academy of Medicine.

DISCUSSION

DR. FORDYCE spoke of a similar case which he had seen in private practice, in which the erythematous lesions recurred a number of times in the same locations and left a pigmented skin behind. In one of these cases the patient had a gonococcus infection.

DR. HEIMANN said that a curious feature was that the pigment did not seem to be of hematogenous origin. On close examination it seemed to be due to chromatophores. Originally it was supposed to be a hemorrhagic condition in the erythema multiforme group.

DR. WHITEHOUSE said the case was like one he had presented some months before of erythema multiforme—it acted just like that. The erythematous patches would recur in the same areas and leave pigmented areas like this. It was regarded as a kind of purpura, but now he believed that it was erythema perstans, like this case.

DR. MACKEE said that Dr. Heimann's remark was a very important finding, and that it was a real pigment, chromatophores, rather than pigment in the blood.

LUPUS ERYTHEMATOSUS, DISCOID TYPE. PRESENTED BY DR. HEIMANN FOR DR. FORDYCE

The patient was a man, aged 30, who had suffered from the condition for five years. He also gave a history of having had a chancre sixteen years ago. The eruption appeared in the region back of the ear, on the sides of the ears, on the cheeks, the nasal area and the chin. The lesion on the nose consisted of an erythematous, scaly and pitted eruption, and covered the entire nose from base to tip, with the exception of a small portion of the alae. There were large bean-shaped lesions on both cheeks, and a few old, pitted scars on the chin. The lesions on the cheeks strongly suggested syphilis; those on the nose, lupus erythematosus.

DISCUSSION

DR. MACKEE said he had heard Dr. Clark say that perhaps the roentgen ray might prove efficacious with this kind of lupus erythematosus, but not the Kromayer light. In his own experience, the roentgen ray had proved almost useless in lupus erythematosus, but radium was apt to be very efficacious—temporarily so at least—preferably the beta rays, with a radium plaque which was only slightly filtered, for the beta rays were quite penetrating. Apparently these rays proved efficacious in lupus erythematosus.

DR. WHITEHOUSE, reverting to the fact that some of the old methods that used to give results were often now neglected, said that this was a case in point. These and similar cases used to be treated with multiple scarifications—the scarifications going through the whole extent of the lesion—not deep, but close together and crisscrossed. The result was most excellent. It not only cured the lupus erythematosus, but smoothed off the surface, leaving a better cosmetic effect than the methods now employed. The CO₂ snow often left a bad effect. It might be well to try the multiple scarification in this instance.

DR. FORDYCE asked Dr. Whitehouse if he had ever cured a case of lupus erythematosus with multiple scarification.

DR. WHITEHOUSE replied that the patient had been temporarily cured, at least, and had never returned.

DR. FORDYCE said that when the lesions of lupus erythematosus were curetted they usually recurred at the margins. He had obtained better results from CO₂ snow than from any other method of treatment. He had seen cases treated successfully by Dr. Abbe with radium.

DR. LANE showed a photograph of a case of severe bromid poisoning occurring in a child, 4 months old, who had been taking 4 grains of potassium bromid for a week. At first it was diagnosed as chickenpox. The eruption was of the ordinary type but was rather exaggerated.

DR. WHITEHOUSE reported two interesting cases of lupus serpiginosus that were in the hospital. One of the patients was a woman, aged 55, who had had the condition for thirty-five years, developing, as she stated, after scarlet fever. It extended over the back, knees, thighs, and abdomen, and over one side of the face into the hair. There was a cicatricial area in the center of the thigh lesion, giving a picture very much resembling serpiginous ulcerating syphilis.

The other patient was a boy, aged 12, who had had the condition for seven years, following a scratch by a cat. The disease extended over the back to the lumbar region and over the abdomen down to the pubis. It was a question what to do for cases of this sort—whether to use the roentgen ray, taking in an isolated area, as on one knee in this case, 6 or 7 inches in diameter, or whether tuberculin injections would have any effect. He was trying the latter in both cases, giving it every five days. The boy had had some parts removed and skin grafted, but it seemed a hopeless prospect.

NEW YORK ACADEMY OF MEDICINE
SECTION ON DERMATOLOGY

Regular Meeting, March 6, 1917

GEORGE M. MACKEE, M.D., *Chairman*

DERMATITIS HEMOSTATICA. PRESENTED BY DR. POLLITZER

S. R., aged 53, was of Russian nationality and worked as a butcher. The affection began eighteen months ago as a bluish discoloration on the dorsal surfaces of both feet, close to the ankles. The original areas were about

1 inch in diameter. When presented before the Section, the skin on the anterior and lateral surfaces of the legs, from the ankles to the knees, was slightly thickened and scaly, in which there were many small areas of a dark, reddish-brown color and numberless pin-point, brownish and bright-red macules. Punctate hemorrhages would sometimes occur after firm pressure. The larger cutaneous veins of the legs were markedly varicose.

DISCUSSION

DR. LAPOWSKI observed the case a year ago and considered it to be one of ordinary purpura.

DR. GOLDENBERG said that he had heard that this eruption had been considered, by a previous observer, to be purpura annularis telangiectodes—a diagnosis which he could not accept.

DR. HEIMANN said he had seen the histologic specimens and that they suggested the changes found in purpura annularis telangiectodes. Clinically, however, he was in doubt about the diagnosis as it did not conform to the usual clinical picture.

DR. SATENSTEIN said that a careful clinical study would reveal red puncta which consisted of telangiectatic vessels. Furthermore, these puncta produced annular lesions in places, with central pigmentation and slight atrophy. The clinical picture was certainly not that of ordinary purpura. The eruption had existed for over a year and while new lesions continued to develop, the older ones gradually disappeared, leaving atrophy. Histologically there was no dermatitis and no evidence of hemorrhage. The vascular coats were thickened or swollen and the individual elements of the walls could not be made out. On the strength of the microscopic findings he was inclined to consider the case as representing purpura annularis telangiectodes.

DR. WISE said that he could not make a definite diagnosis but knew that cases of this type were common. He did not think it was an example of purpura annularis telangiectodes.

DR. MACKEE said that he had had the opportunity of observing several authentic cases of purpura annularis telangiectodes and he had had occasion to read the literature of the subject. The disease was, the speaker said, an absolute clinical entity. The eruption was not secondary to a preceding condition. The disease was usually limited to the feet, legs and thighs but was occasionally encountered on the buttocks, abdomen, chest, back, arms and forearms. The affection occurred as a rule in definite and repeated attacks; the total time required for evolution and involution was from two to six or even eight months. The elementary lesion was a bright-red punctum, occurring, as a rule, in connection with a hair follicle and due to a dilated capillary which often became thrombosed. Hemorrhage occurred secondarily and subsequently gave rise to more or less pigmentation. The disease was not, therefore, a purpura and for this reason Majocchi, who first described the affection, desired to change his original descriptive title to telangiectasia follicularis annulata. New punctate lesions continued to develop in the immediate neighborhood of the original punctum, until a patch the size of a lentil had developed. By this time the central puncta were disappearing and being replaced by pigmentation and, in some instances, by atrophy and alopecia. In the meantime, however, new puncta continued to develop beyond the periphery so that the circinate lesion increased to the size of a dime or even larger by the acquisition of outlying satellites. Finally all the lesions would disappear and after a period of quiescence, another attack was likely to manifest itself. The disease could, therefore, be divided into three stages—telangiectatic, hemorrhagic and pigmentary and finally, but not in all cases, atrophic. While the annular lesion was the most striking clinical feature, yet in some instances these were not so very numerous, so that the eruption might consist of widespread puncta with here and there an annular lesion. Thus borderline cases were occasionally

observed in which it was difficult to confirm the diagnosis either clinically or histologically.

Histologically, the typical and most marked features were a marked dilatation and congestion and a numerical increase of the capillaries, ruptures and hemorrhages, and a slight to moderate focal infiltration of small round cells. Occasionally aneurysmal sacculations of the vessels could be detected. Later there developed a panarteritis and, finally, complete destruction of the vessels by a degeneration of their walls—usually a hyaline degeneration, with subsequent atrophy of the epidermis and even of the derma.

The speaker said that while Dr. Pollitzer's case showed some of the clinical and histologic features of purpura annular telangiectodes, he was unable to identify the case as such because it was too atypical and it was quite possible that the diagnosis of dermatitis hemostatica was the proper one.

DR. POLLITZER said he did not consider the case as being one of purpura annularis telangiectodes. He thought that this eruption represented a condition that was frequently seen. This condition was described twenty-five years ago by Dr. Klotz as dermatitis hemostatica—a condition due primarily to varicose veins with chronic dermatitis developing secondarily. The veins and the superficial capillaries of the derma became dilated and congested. This was followed by exudation of serum so that the derma and epidermis became edematous with a consequent parakeratosis and scaliness. The walls of the blood vessels will show signs of degeneration. While there may be an occasional rupture of a vessel with a free hemorrhage, this was accidental and exceptional. The slight appearance of purpura was due to the passage of the red cells through the weakened vessel walls. The red puncta were due to the dilated vessels and the pigmentation was the remains of the red cells which passed from the vessels into the surrounding tissues. In reply to a question of Dr. Lapowski's, the speaker said the disease was limited to the lower extremities because this was the usual place for varicose veins.

DR. LAPOWSKI said that the term dermatitis hemostatica did not mean anything to him. He asked if Dr. Pollitzer would use this term as an entity. He also asked for the difference, clinically, between this so-called dermatitis hemostatica and purpura.

DR. POLLITZER replied that purpura was a hemorrhage resulting from a rupture of a blood vessel. It was possible, the speaker said, to have red cells in the tissues with consequent pigmentation without an actual break in the vessel, the erythrocytes passing per diapedesis. But this was not purpura.

LUPUS VULGARIS AND EPITHELIOMA. PRESENTED BY DR. HOWARD FOX

The case had been previously presented before the New York Dermatological Society, Feb. 27, 1917.

DISCUSSION

DR. GOLDENBERG said that he was first under the impression that the condition was lupus erythematosus but on close inspection he had come to the conclusion that it was a case of lupus vulgaris erythematoides—a condition that had been described by Lelvir. There was also secondary epithelioma.

DR. POLLITZER agreed with Dr. Goldenberg's diagnosis of lupus vulgaris erythematoides with epithelioma.

DR. HEIMANN thought that in places the eruption suggested lupus erythematosus. He had examined the tissues removed by Dr. Fox, however, and found a typical tuberculous structure.

TUBERCULOSIS CUTIS VERRUCOSA (?). PRESENTED BY DR. ROTHWELL

The patient, a man aged 26, was from Dr. Trimble's University and Bellevue Clinic. For two years, very gradually increasing in size, located at the inner end of the left eyebrow, there had presented a patch of the size of a silver

quarter, sometimes pustular in character, at other times warty, and at others appearing like granulation tissue. The Wassermann reaction was negative. Moro test, decidedly positive. The pathologic laboratory reported that it was impossible to make a microscopic diagnosis; no blastomycetes were found.

DISCUSSION

DR. LAPOWSKI said that he would have to accept the diagnosis as based on a negative Wassermann and positive Moro test but clinically, he regarded the case as one of syphilis. In the patch there were three annular lesions each separated from the other, which tended to make him consider the possibility of syphilis in spite of the laboratory tests. The speaker did not place much reliance on the Moro test and would demand that the tuberculin be injected and a constitutional reaction looked for. The only positive test that the speaker would accept would be a vigorous antisppecific treatment, as the injections of calomel.

DR. POLLITZER considered the case to be one of acquired syphilis. He recommended further laboratory tests and a vigorous therapeutic test—particularly the latter.

DR. WILLIAMS also thought the case was one of syphilis rather than tuberculosis. The lesion was nodular and annular. Furthermore, a Wassermann reaction being negative did not exclude syphilis, because a high percentage of negative Wassermann tests were obtained in late syphilis.

LUPUS VULGARIS. PRESENTED BY DR. ROTHWELL

The patient, a longshoreman, aged 22, was from Dr. Kingsbury's service at the Skin and Cancer Hospital. The family history was negative for tuberculosis. He was one of nine children, all of whom were healthy. The lobe of his left ear was enlarged to the size of a sickle pear, firm to the touch, and imbedded in which were numerous nodules. The Wassermann reaction was negative. The lesions began about two years ago.

DISCUSSION

DR. WILLIAMS objected to the term lupus vulgaris applied to this lesion. It was a large, firm mass without apple-jelly nodules—a lesion that was seen fairly frequently in tuberculosis and he thought that this particular clinical type should receive a separate name.

DR. POLLITZER agreed with Dr. Williams that the case should not be called lupus vulgaris but of course it was a tuberculosis of the skin.

DR. HOWARD FOX thought the term lupus vulgaris tumidus would be suitable for this case.

DR. GOLDENBERG agreed with Dr. Fox.

LUPUS VULGARIS (?). PRESENTED BY DR. LAPOWSKI

This patient was presented before the last meeting of the Section as one of lupus vulgaris. Since then the patient has been given calomel injections and there had been a marked improvement in the lesions.

DISCUSSION

DR. GOLDENBERG said that he did not wish to provoke a lengthy discussion regarding the relative value of salvarsan and calomel, but he would like to have Dr. Lapowski tell briefly why he excluded salvarsan and considered only calomel of value as a therapeutic test.

DR. PAROUNAGIAN said that he had made a diagnosis of nodular syphilid at the previous meeting and he was glad to see his former diagnosis verified.

DR. SATENSTEIN asked permission to say a few words relative to the use of mercury in other diseases than syphilis. In the City Hospital, a number of

years ago, large doses of mercury were given to five cases of leprosy. The eruptions, in places, involuted. The fact that the lesions responded did not mean that they were syphilitic.

DR. LAPOWSKI said that the reason he placed more value on calomel than on salvarsan was because he had had little experience with the latter in lupus cases, and a great deal of experience with the former. If all the lesions in an eruption disappeared under the influence of calomel, the case was one of syphilis, but if some of the lesions disappeared and others remained, then it was not a case of syphilis.

CASE FOR DIAGNOSIS. PRESENTED BY DR. BECHET FOR DR. TRIMBLE

The patient, a male adult, was a fireman by occupation. Seven years ago he had a lesion on the penis which was followed by pharyngitis and alopecia, for which he received no treatment at all. He then remained free from symptoms until three months previously, when he injured his left index finger, which never healed but became progressively worse. Three weeks after injuring his finger, the ship on which he worked had been loaded with hides. One month later furuncle-like lesions appeared on the face, scalp, arms and legs. These lesions contained a very fluid pus, and eventually broke down, forming rounded, clean-cut ulcers. One injection of an unknown quantity of salvarsan, and seven or eight bottles of mixed treatment effected no change in the lesions. When first seen he had a large ulcer on his left index finger, covered with unhealthy granulations, and surrounded with a well-defined border. On the arms, face and legs, were several sharply-marginated, deep ulcers, with here and there a lesion filled with pus. A first Wassermann test was + + + +, a second test taken three days later gave + reaction, probably a laboratory mistake. Smears and cultures gave negative results. Since one month there had been much improvement, the finger being greatly improved, yet nothing had been used but boric acid applications. The case bore some resemblance, when first seen, to sporotrichosis, but the negative pathologic results excluded such a diagnosis. The lesions were probably syphilitic, and were either aggravated or caused by traumatism. Several cases had recently been reported by French military surgeons, of the appearance of syphilitic lesions at the site of injuries, and this case might belong to that category.

DISCUSSION

DR. WISE thought the patient had syphilis and that the lesions which he presented were the result of the disease, combined with local injuries.

DR. PISKO agreed with the diagnosis.

LEUKOPLAKIA OF BUCCAL CAVITY AND TONGUE. PRESENTED BY DRS. MACKEE AND ROSEN

W. T., negro, married, aged 57, from Dr. Fordyce's clinic, denied infection with syphilis and had always been in good health. He was the father of two apparently healthy children; his wife had had two miscarriages. The duration of his trouble was two years. The mucosa of the tongue, especially its dorsal surface, presented a uniform, somewhat roughened, grayish-white coating. On the buccal mucosa the color was pearly-gray, the surface smooth and glistening. Subjective symptoms were trifling. A subsequent Wassermann test proved + + + +.

DISCUSSION

DR. HOWARD FOX spoke of a case of leukoplakia in a mulattress that he had recently seen at the Harlem Hospital. In his studies of skin diseases in the negro, he had found leukoplakia to be very rare in the colored race and it was well known that the disease was uncommon in women. The combination, therefore, of leukoplakia occurring in a colored woman, he thought, was worthy of comment.

TUBERCULOSIS VERRUCOSA. PRESENTED BY DR. WILLIAMS

H. D., man, aged 38, born in Ireland, driver by occupation. General health was good, no history of cough. About three years ago he noticed a crack under the middle toe of the left foot, and a few months later noticed redness and swelling on the back of this toe. In November, 1914, a papule appeared on the dorsal surface of the first right metacarpal joint, and this gradually developed into a warty lesion. The dorsal surface of the right index finger had been involved for about a year.

The whole dorsum of the middle toe of the left foot was covered with a warty growth which when first seen a few days before presentation, was almost black in color, and quite hard. There was no pus visible. The growth extended on to the plantar surface of the toe and about half an inch on to the plantar surface of the foot itself. In the fold under the toe the skin was cracked. On the radial aspect of the right wrist there was a warty growth extending from the middle of the metacarpal bone, about 3 inches upward. This growth was about an inch wide, with an extension about three-quarters of an inch by an inch and a half over the anterior surface of the wrist. Another warty growth involved about half of the dorsal surface of the right index finger. The growths were all warty, raised, dry, firm, with a hard surface, and deep cracks between the papillae. There was little or no exudation. Each was surrounded by a red zone about a quarter of an inch wide. Two weeks previous to the time of presentation, there had been redness, pain and swelling extending up the right forearm, but this had subsided under wet dressings.

LUPUS ERYTHEMATOSUS OF THE LOWER LIP. PRESENTED BY
DR. BECHET

A man, aged 32, from the service of Dr. Trimble, had had an eruption on the lower lip for four years. His general health had been very good. Of two Wassermann tests, one was weakly positive, the other negative. Six injections of salicylate of mercury, 2 grains each, and one month of oral treatment had had no effect on the lesion. The patient presented for examination a sharply-marginated lesion involving most of the lower lip, with a tendency to form a border at certain parts of its periphery. There was some scaling and atrophic changes in its center, but no ulceration. The rest of the skin surface was apparently free.

DISCUSSION

DR. WILLIAMS said that he wished to call attention to the fact that there was very little involvement of the vermilion border of the lip—most of the disease was in the skin. There was a serpiginous lesion composed of central atrophy with a distinct elevated, pearly border. The speaker would consider the possibility of a superficial serpiginous epithelioma.

DR. LAPOWSKI said that inasmuch as the man spoke only Polish, he was able to obtain a better history than had been given. The lesion developed as a tiny nodule which, after increasing in size, completely disappeared. Later it reappeared, spread a little and then disappeared again. In the course of a few years the lesion healed and reappeared a number of times, each time being a little larger. On account of the scarring and this history the speaker suggested a diagnosis of syphilis. He stated that one should make a diagnosis clinically, regardless of laboratory findings and that he saw evidences of syphilis in this lesion.

DR. PAROUNAGIAN recalled a case of lupus erythematosus of the lip which was the exact counterpart of that presented by Dr. Bechet. Vigorous anti-syphilitic treatment in this case was of no benefit whatever.

DR. WISE agreed with the diagnosis of lupus erythematosus, and stated that to his eyes, the lesion was quite characteristic of that condition.

DR. BECHET said that he first thought the diagnosis was syphilis, but as antisyphilitic treatment had been of no avail, he had changed his opinion and considered the lesion to be lupus erythematosus. The speaker said that the lesion began four years previously; in that time, were it epithelioma, ulcerative changes and the border would be much more marked. The vermilion border of the lip was involved.

PITYRIASIS ROSEA INVOLVING THE FACE. PRESENTED BY DR. HOWARD FOX

The patient, J. G., was a man aged 29, married, born in the United States, an electrician by occupation. Five days previous to presentation he had noticed a reddish spot, the size of a nickel, in the lower quadrant of the abdomen. At the same time he noticed a small number of punctate spots scattered about the trunk. During the next two days a profuse eruption appeared over the greater part of the body, extending on the extremities to the wrists and ankles. It was also present in profuse amount on the neck and in a less marked degree on the cheeks and forehead. There were lesions also on the shaft of the penis. The eruption consisted of slightly scaling, reddish, rounded and fusiform macules and large numbers of punctate lesions. A number of punctate excoriations, chiefly on the extensor surface of the thighs, showed that the eruption was certainly pruritic. The amount of itching was sufficient to rule out a syphilid, a fact that was confirmed by the lack of other symptoms of syphilis. The Wassermann reaction was negative. Some of the larger macules were surrounded by satellite punctate lesions in a manner to suggest the corymbiform syphilid.

DISCUSSION

DR. LAPOWSKI said that on account of lesions being present on the scalp, neck and axillae, and the fact that there were no medallion lesions anywhere, and also on account of the numerous pinhead-sized macules and papules, he would favor a diagnosis of seborrheic eczema.

DR. HOWARD FOX thought the point of greatest interest was the presence of so many lesions on the face. There would be no doubt that the disease occurred on the face, although it was true that this seldom occurred. A syphilid was suggested by the occurrence of lesions on the forehead and by the corymbiform arrangement of many lesions on the trunk. This diagnosis, he felt, could be definitely ruled out. The history of an initial patch and the pruritic nature of the eruption, were strongly in favor of pityriasis rosea. The speaker agreed with his father that we should have a broader conception of pityriasis rosea. The disease might present three types of lesions; circinate lesions, solid macules and small puncta. All of these lesions could be present in the same case. In the eruption presented in this case there were numerous macules and puncta but no circinate lesions.

LICHEN PLANUS FOLLOWED BY MARKED PIGMENTATION. PRESENTED BY DR. LAPOWSKI

The patient presented a marked reticulated pigmentation of the legs following the disappearance of lichen planus lesions. The pigmentation was not due to treatment as none had been given.

DR. HEIMANN said that he did not share in the astonishment of Dr. Lapowski over the pigmentary remains of former lesions. It was not uncommon, the speaker said, for lichen planus to leave pigmentation just as did syphilis. It was even possible to make a diagnosis of former lichen planus on these pigmentary remains.

DR. LAPOWSKI said that pigmentation in lichen planus in such a marked degree as in this patient usually occurred when the patient had been treated very actively with arsenic. If mercury instead of arsenic was given, very slight pigmentation followed involution of the lesions. In untreated cases the

speaker said he would challenge any one to make a diagnosis from the pigmentation alone, as shown in this case.

DR. SATENSTEIN said that he had made a number of biopsies in cases of lichen planus after involution. He had found that there was no real pigment remaining after the disappearance of the lesions but that the apparent pigmentation was due to a marked thickening of the kerato-hyaline layer.

DR. HEIMANN said that he had never seen a case of involuting lichen planus that did not show chromatophores and pigmentation in the tissue and the clinical picture here presented was almost always found after lichen planus.

ECZEMA AFTER ROENTGEN-RAY TREATMENT. PRESENTED BY DR. HOWARD FOX

The patient, Etta F., had been previously presented for a peculiar type of eczema that had appeared every winter since childhood and remained localized about the mouth and lips. She was presented to show the ease with which such lesions could be removed by the roentgen ray. Although the lesions invariably disappeared spontaneously in the summer, the eruption had remained every winter in spite of persistent treatment by various salves and lotions. She was given fractional doses of roentgen ray at weekly intervals ($\frac{1}{4}$ H. unit at skin distance). At the end of a month (after three treatments had been given) the eruption had entirely disappeared, except for a faint scaling close to the vermilion border. Later there was a slight relapse and she had been given four more treatments and when presented, showed absolutely no signs whatever of eczema.

LICHEN PLANUS HYPERTROPHICUS. PRESENTED BY DR. ROTHWELL

The patient, a woman, aged 43, was from Dr. Trimble's University and Bellevue Clinic. On the hands, forearms and legs, there were numerous hypertrophic lichen planus papules. In addition, there were a large number of ordinary lichen planus papules. The feature of the case was the fact that the hypertrophic lesions preceded, by several months, the appearance of the papules of ordinary lichen planus. The patient gave a positive Wassermann reaction and was under treatment for syphilis.

LEUKODERMA SYPHILITICUM. PRESENTED BY DR. LAPOWSKI

The patient, a young woman, was the fourth of ten children. Two of the older children had died of unknown causes. Two of the younger children died and there was one miscarriage. The Wassermann reaction was negative. The patient had been married twelve years and had two healthy children. The duration of the eruption was four months. There was a mottled pigmentation over the neck and shoulders.

DISCUSSION

DR. WILLIAMS said that he would not dare base a diagnosis of syphilis on the mottled pigmentation of the neck in this case, with no corroborative symptoms. He suggested a diagnosis of chloasma.

DR. LAPOWSKI said that chloasma did not appear in the mottled form on the neck.

DR. PAROUNAGIAN agreed with the diagnosis on account of the location and the characteristic appearance; as to the negative Wassermann, he suggested that a provocative dose of salvarsan be given and to have two or three different serologists make the examination. He remarked that it would be very interesting if this condition could be found in a nonsyphilitic subject.

DR. HEIMANN said that he thought there was too much hyperpigmentation and also too little depigmentation to be sure of the diagnosis of syphilitic leukoderma. One would have to consider the possibility of adrenal disturbance,

chloasma, and other affections. If the case were one of syphilis, the speaker was of the opinion that the disease was of one or two years duration and he would expect to obtain a positive Wassermann reaction.

DR. LAPOWSKI said that the history of the patient was negative, also Wassermann reaction was negative, but that both the mother and father had syphilis. This was the only fact that he could ascertain that would tend to substantiate his diagnosis of syphilis.

GUMMA OF LIP AND BUCCAL MUCOSA. PRESENTED BY DRs. MACKEE AND WISE

M. T., female, single, aged 37, from Dr. Fordyce's clinic, denied all venereal history. Since the past one and one-half years she had been troubled by a number of small ulcerations affecting the buccal mucosa of the left side, extending from the left corner of the mouth, backward to the molar teeth. Since the past six months the process had extended to the vermilion of the lip and to the skin of the upper lip, on the left side of the mouth. The mucosa presented a somewhat circumscribed group of deeply punched-out ulcers, their orifices large enough to admit the head of a match. On the skin of the lip, adjoining the vermilion, was a raised, hazel-nut sized tumor, with an ulcerating, scabbed center. The patient was presented chiefly on account of the simulation of her lesions in the buccal cavity, to tuberculosis ulcerosa. The Wassermann test, taken subsequently, was +++.

DISCUSSION

DR. HOWARD FOX said he could not make a clinical diagnosis but thought that tuberculosis should be considered.

DR. LAPOWSKI said that such a lesion would have to be studied and that a diagnosis could not be made on one observation.

DR. PAROUNAGIAN regarded the lesion as a syphilitic gumma.

DR. MACKEE said that the reason he thought it was a gumma was on account of the very marked area of infiltration at the commissure. In this area there were three or four crateriform or punched-out ulcers. The lesion involved the mucous membrane of the cheek as far back as the molar region and was distinctly verrucous. Both tuberculosis and syphilis could produce a lesion of this kind in this location. The duration was rather long for syphilis but the speaker had seen cases in which there was a buccal lesion of this type of one and two years' duration.

PAPULO-NECROTIC TUBERCULID. PRESENTED BY DR. HOWARD FOX

This case was previously presented (see THE JOURNAL, 1911, Vol. 29, p. 552).

LUPUS ERYTHEMATOSUS DISSEMINATUS. PRESENTED BY DR. BERGER FOR DR. POLLITZER

A. H., aged 55, a Russian, had been in America seventeen years. The affection began four months ago, on the face, as a small discoid lesion. Other lesions soon developed and many coalesced. When the patient was presented before the Section, the face, scalp and ears showed typical lesions of lupus erythematosus. Of especial interest were the purplish, flat, annular lesions on the palmar aspects of the fingers and on the palm of the right hand.

CASE FOR DIAGNOSIS (INFILTRATED PATCH ON CHIN). PRESENTED BY DRs. HOWARD FOX AND OCHS

The patient, C. N., was a woman, aged 66, who was born in England. For the past five months she had presented a bluish red infiltration of the chin. It was fairly sharply circumscribed, dry and devoid of scaling. The Wassermann reaction was negative.

REPORT OF A CASE OF EXTENSIVE TUBERCULOSIS. BY DR. HOWARD FOX

DR. FOX desired to report on a case of extensive tuberculosis that he had presented at a previous meeting. The lesions were ulcerating and deep-seated and were situated on the backs of the arms, buttocks and on the posterior aspects of the thighs and legs. The speaker said that he had presented the case as one of tuberculosis and that most of the members had agreed with the diagnosis but that Dr. Lapowski had considered the case to be one of syphilis. The speaker said that the patient had evidence of pulmonary tuberculosis and showed no grouping of the cutaneous lesions as would be found in syphilis. Dr. Heimann had made a biopsy and had found a tuberculous structure.

DR. HEIMANN said that he had studied the lesions histologically and considered them to be tuberculous.

DR. LAPOWSKI said he would not accept a microscopic diagnosis in such a case, no matter who made the report. He would not accept a diagnosis unless the tubercle bacilli were demonstrated. The speaker regarded the case as one of syphilis and felt that vigorous antisyphilitic treatment would produce the desired result.

DR. FOX asked Dr. Lapowski for his specific requirements for ruling out the diagnosis of syphilis.

DR. LAPOWSKI, in answer to Dr. Fox, said that one calomel injection should be given and this should be repeated in ten days. The speaker said that he had had no experience with salvarsan in lupus and that is the reason he never used it as a therapeutic test. He placed his faith entirely in calomel.

DR. WISE asked Dr. Lapowski what had been the further history of the two cases that the latter had presented at the last meeting. One of the patients exhibited lesions on the face which some of the members considered to have been lupus erythematosus. The other case also had lesions on the face which were accepted as being seborrheic eczema. Dr. Lapowski had presented both patients under the diagnosis of syphilis.

DR. LAPOWSKI said that the seborrheic eczema case disappeared from observation after receiving a calomel injection. The other patient had received no local treatment except boracic acid ointment and under calomel and potassium iodid, the lesions were disappearing. He said he would try to present the case again.

EPITHELIOMA OF THE HAND. PRESENTED BY DR. ROTHWELL.

The patient was a man, 57 years old, handling dyes in a wall paper factory. About a year ago he noticed an ordinary "pimple" on the dorsum of his right hand; he opened it with a needle, but nothing came out of it. The lesion persisted and in two months it was about a quarter of an inch in diameter, and appeared to be a "pit" out of which warty growths projected. This condition he treated with acids, and as a result was able to scrape off a cheesy substance. About six weeks ago it reached the size of about half an inch. The lesion had an elevated, soft rim and out of the crater-like opening projected verrucous growths. He had had a genital sore 35 years ago, but no secondaries. The Wassermann reaction was + + +, and two weeks of mixed treatment showed no appreciable change in the appearance of the lesion.

CASE FOR DIAGNOSIS. PRESENTED BY DR. AITKEN.

The patient, R. B., was aged 34, an Austrian, and had resided in this country twelve years. The disease began four years ago, with the appearance of small, round tubercles on the anterior and inner surfaces of the left leg, below the knee. Within the past four years lesions appeared in numbers on both legs (below the knees) and arms (below the elbows) in the form of small tumors. These tumors were pea-sized, firm, and immovable in the skin, flattened, cle-

vated and pinkish in color. The patient had radiating pains down the arms and legs, especially at night.

DISCUSSION

DR. AITKEN requested an expression of opinion as to whether the lesions lay in or below the skin, and suggested the diagnosis of dermatoneuroma of the type described by Duhring and Leszinsky.

DR. FOX said that as the lesions were movable they were not neuromas, and since they came and went he thought that they were lesions of erythema nodosum.

DR. AITKEN repeated that the lesions never disappeared.

DR. MACKEE agreed with Dr. Fox and suggested the diagnosis of some persistent form of erythema.

DR. HEIMANN pointed out that if the lesions were persistent the diagnosis of cutaneous myomata must be considered.

DERMATITIS HERPETIFORMIS. PRESENTED BY DR. HEIMANN.

D. M., 42 years old, was an Italian laborer. The eruption began ten months ago and had persisted since then with periods of improvement and fresh exacerbations. It was general from the very beginning. First, small white elevations appeared which soon became vesicular and pustular. There had always been slight itching. No complaint was made of any constitutional disturbance. Just previous to a fresh outbreak of lesions, the patient had suffered from slight malaise. The eruption was general, on the scalp, face, neck, trunk and extremities. It consisted of elevated red patches and papules, vesicopapules, vesicles with clear and turbid contents, and pustules, a few of which were follicular. The lesions were discrete but in places tended to group and also form circinate areas.

DISCUSSION

DR. POLLITZER inquired why the case should be considered dermatitis herpetiformis. He added that the grouping was not characteristic, the disease had not lasted long enough yet to present the characteristic history of remissions, and that it resembled a bullous erythema, but might prove to be dermatitis herpetiformis or even pemphigus.

DR. WISE stated that pemphigus could not be excluded, the nature and appearance of the lesions being indistinguishable from those of early pemphigus.

DR. MACKEE asserted that only after long observation could a diagnosis be reached, and pointed out that bullous lesions in the mouth were against dermatitis herpetiformis and favored pemphigus.

DR. FOX subscribed to these views.

DR. BECHET expressed himself as favoring the diagnosis of dermatitis herpetiformis because the lesions showed a tendency to grouping, and the scratch marks and torn vesicles proved the presence of a severe pruritus. There was also considerable pigmentation and tendency to scarring. The patient stated that he had had several recurrent attacks, with intervals of perfect freedom between attacks. The objective symptoms and the history therefore favored the diagnosis of dermatitis herpetiformis rather than pemphigus.

DR. HEIMANN mentioned that it was trite among experts in dermatology to recall the fact that dermatitis herpetiformis suggested pemphigus, and that in considering either diagnosis one always bore in mind the other. Nor was it possible to predict that the case would not turn out to be pemphigus. But, he pointed out, the lesions itched, were grouped, came in crops and otherwise resembled Duhring's disease. It was a well known fact that this condition was often the precursor of pemphigus vulgaris, but that a diagnosis must rest on objective evidence and this was against pemphigus. Furthermore, a patient with so extensive an eruption, if it were pemphigus, would be very sick, and the evident good health of this patient in itself favored the diagnosis of dermatitis herpetiformis.

SYRINGOCYSTADENOMA. PRESENTED BY DR. FOX.

(Presented before the November, 1916, meeting of the New York Dermatological Society.)

DISCUSSION

DR. POLITZER wished to know whether such lesions in negroes were always so dark.

DR. MACKEE mentioned that he had seen the duplicate of the case presented in a young negress. He had seen improvement in a young white woman under Roentgen-ray therapy. Histologically, the various cases in this group were very similar and most of them probably belonged to the nevus family.

DR. POLLITZER stated that the term lymphangioma tuberosum multiplex, given by Kaposi, was due to an error in that he had regarded the tubular nests seen microscopically, as lymph vessels. Trichoepithelioma was a different process, the connection with the hair follicles having been established. He regarded trichoepithelioma and syringosystema as two distinct entities, the former a neoplasm and the latter a nevus.

POLYGLANDULAR SYNDROME. PRESENTED BY DR. OULMANN.

(This case had been presented at the November, 1916, meeting of the Section.)

DISCUSSION

DR. FOX stated that he saw no change in the condition since the child had had thyroid treatment, and reiterated his belief that the case was one of scleroderma. He stated that Dr. LaFetra, who had seen the child, held this view.

In addition, the following cases were presented:

HAIRY NEVUS. PRESENTED BY DR. GILMOUR.

HUTCHINSON'S TEETH. PRESENTED BY DR. HOWARD FOX.

TUBERCULOSIS OF THE MOUTH. PRESENTED BY DR. BECHET.

MOELLER'S GLOSSITIS. PRESENTED BY DR. KINGSBURY.

XANTHOMA TUBEROSUM. PRESENTED BY DR. PAROUNAGIAN.

LYMPHANGIOMA CIRCUMSCRIPTUM. PRESENTED BY DR. TRIMBLE.

LEUCODERMA WITH UNUSUAL DISTRIBUTION. PRESENTED BY DRs.
MACKEE AND WISE.

LUPUS ERYTHEMATOSUS WITH LUPUS PERNIO. PRESENTED BY
DR. HEIMANN.

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meeting, Feb. 9, 1917

FRED WISE, M.D., *Chairman*

URTICARIA PIGMENTOSA. PRESENTED BY DR. WALLHAUSER

The patient, a woman aged 28, robust and apparently in good health, presented a macular eruption which had persisted seven years. The lesions were rounded and quite uniformly split pea in size, and inclined to symmetrical distribution. They were disseminated and grouped, and in some locations had coalesced, developing circles and lines. The regions involved included the lower part of the cheeks, the neck, the regions under the breasts, and the extensor

surfaces of the arms, hands and thighs. All other locations were practically free from eruption.

The lesion had developed gradually, involving first one location, then another, during several years. Then it had remained stationary, no new lesions having appeared during the past two years. In the early period they were raised above the skin and were purplish red, gradually resulting in pigmented lesions of various shades, from dark to light brown, with an admixture of yellow in the milder areas. On being irritated by either rubbing or pressure, the spots became elevated and purplish or bluish red, after several hours assuming the brownish appearance as they became flattened. The rapidity of evolution to the quiescent stage depended on the degree of irritation.

In connection with this phenomenon, an interesting feature was described by the patient with reference to a reaction which occurred after the injection of an immunizing dose of diphtheria antitoxin. Shortly after the injection was received, an urticarial efflorescence resulted in all the locations previously involved, and was more pronounced than in any previous exacerbation.

The only subjective symptom consisted of a mild burning sensation, which, however, was not continuous.

DISCUSSION

DR. OCHS said he disagreed with the diagnosis and that the eruption looked like parapsoriasis guttata. It struck him more on account of the scaling and slight infiltration. The lesions were not in regions where they usually had urticaria. He would be inclined to depend on a biopsy to prove the case by microscopic examination.

DR. SATENSTEIN favored the diagnosis of parapsoriasis guttata. He said that urticarial lesions were more apt to occur in the young, whereas parapsoriasis was more apt to occur at the time of life of this patient. As Dr. Gottheil had said, there would otherwise be nothing but a stain. These lesions were elevated and had never disappeared, which was more the history of parapsoriasis. There was more or less scaling which he had not seen in an urticarial lesion.

DR. PAROUNAGIAN said all the cases of urticaria pigmentosa he had seen were more diffuse, being all over the body, and he thought Dr. Rosen's diagnosis a good one. As far as parapsoriasis was concerned, the lesions were too elevated and he could not see much scaling.

DR. WISE said that the lesions, as they appeared under artificial illumination, closely resembled those of parapsoriasis guttata, and that a biopsy would make the differentiation extremely easy, as in urticaria pigmentosa there would be a mast-cell infiltration of the corium.

DR. WALLHAUSER said that the first diagnosis that occurred to him was parapsoriasis guttata. The history of recrudescences, however, in which the lesions changed to purplish wheals at varying intervals, or following mechanical irritation, seemed to establish the diagnosis of urticaria pigmentosa beyond question.

ANGIONEUROTIC EDEMA. PRESENTED BY DR. OCHS

The patient was a small girl, aged 12, who had come to the speaker a few days previously, with a swelling of the lips, wrists and eyelids. This swelling or edema was temporary and disappeared as quickly as it came. The duration of the disease had been three years. Whenever she was exposed to cold she got a very marked infiltration of the angioneurotic type. She told the speaker that if she rubbed her arm with snow she was able to produce the lesion. The condition was much better in summer, almost disappearing, and recurring if the patient was in a draught or if the weather turned cold. Foods had no effect on it. When the patient was presented, there were no lesions, but when she was sent out into the cold, lesions promptly appeared, and were visible to all the members present. There were no prodromal symptoms, such as itching or burning, and no kind of food affected the patient's skin.

DISCUSSION

DR. PAROUNAGIAN agreed with the diagnosis, but understood that most of the angioneurotic edema disturbances were due to some intestinal cause. He did not know that heat or cold could cause a condition of that kind.

DR. WEISS, while not wishing to dilate at this time on the influence of the endocrine system and glandular therapy, would say, that in cases like the present and in other angioneuroses of the skin, physicians had to avail themselves of this rather vague term. Even in urticaria and its congeners, they were not absolutely sure of the cause of the vasomotor disturbance, although the clinical syndrome showed evidences of active hyperemia. But this hyperemia might be caused by alterations in the vessel walls, through circulating toxins. In angioneurotic edema the vasomotor disturbances were reflected from the central nervous system. They knew that the adrenals had developed from the sympathetic nervous system, of which the adrenals were a prototype. Adrenalin influenced the hemoglobin and oxygen content of the blood. An alteration of this influence might cause a sudden and local vasomotor paralysis, increased lymph pressure, transudation and edema. They observed such local edemas frequently. On arising, some people had edemas of the eyelids, and puffiness in the hands and feet, which disappeared in a few hours. This would be indicative of thyroid insufficiency. From these fragmentary statements, a polyglandular disturbance could be gleaned as the cause of these skin affections, a close study of which would amply repay in therapeutic gain. In cases of angioneurotic edema, the speaker would recommend the exhibition of suprarenal extract of the whole gland.

DR. OCHS said this was the first case of its character he had seen, in which the ingestion of food did not cause the condition. Here was an instance brought out by changes in the elements. The mother of the patient had told the speaker that the lips and hands of the patient would swell and when the latter went to bed and got warm, the whole thing would disappear. She could eat cheese or berries, neither of which would bring out the lesions, but if she got in a draught or cold, they came on immediately. When the speaker had seen her at 5 p. m. that evening, both lips were swollen and he had marked a place on her arm. He did not remember seeing an angioneurotic edema in a patient so young.

DR. WISE said it might be of interest to the Society to hear of a case of angioneurotic edema under his care, in which the pharynx became swollen at night, so that the patient frequently had to call in a physician to prevent choking. There was a swelling of the eyelids associated with attacks of asthma and after one small injection of adrenalin, all the symptoms disappeared. This had no effect, however, in preventing recurrences.

LICHEN PLANUS WITH LESIONS ON THE TONGUE AND BUCCAL MUCOSAE. PRESENTED BY DR. PAROUNAGIAN

The patient, a woman, aged 72, born in Russia, came from the Gouverneur Clinic. The duration of her affection was about three months. The skin lesions were confined to the posterior aspects of both thighs, extending from the gluteal folds to the popliteal regions. The lesions were violaceous with shining tops, somewhat scaly and very itchy. The mucous membrane of the mouth presented leukoplakia-like patches and similar lesions were well marked on the dorsum of the tongue.

LUPUS ERYTHEMATOSUS DISSEMINATUS. PRESENTED BY DR. PAROUNAGIAN

The patient, Miss E. L., aged 23, born in the United States, was a stenographer. Her father had died of an unknown cause. The mother was living and in good health.

The patient stated that ever since she could remember she had had a rash on the face and neck, and that she used to be sent home from school for "ringworm." These lesions would remain for weeks and months and disappear and reappear in a different spot. She had been seen about one and one half years previously, with lesions on the chin, the lower eyelid, the neck and the scalp. The condition presented, consisted of a patch on the sternum, back of the neck and chin, and the scalp where the lesions were more advanced. The patches were scaly, reddish and superficial, with irregular outlines and were more or less itchy at times. The hands presented similar lesions, more pronounced on the dorsal aspects of the fingers and slightly on the palmar surfaces.

DISCUSSION

DR. WEISS said he agreed with the diagnosis and regarded it as a case of the superficial type of lupus erythematosus. He said it was almost a classic picture of erythema centrifugum of Unna, which corresponded with that classification.

DR. HOWARD FOX agreed with the diagnosis of lupus erythematosus as it had the characteristic location on the scalp, face and backs of the hands. The lesions on the face were not deep-seated, inlaid plaques, but were of the type that occurred in diffuse patches, sometimes covering the entire face, the patients eventually dying of pulmonary tuberculosis. The erythematous type of eczema would be ruled out, as this disease never formed circinate patches.

DR. OULMANN said he regarded the case as one of lupus erythematosus, starting as seborrhea congestiva.

DR. WISE asked whether this case was not one of that type of lupus erythematosus which Hutchinson had described as chilblain lupus.

LUPUS VULGARIS FOLLICULARIS AND TUBERCULOSIS VERRUCOSA CUTIS. PRESENTED BY DR. ROSEN

The patient, F. J., was a woman, aged 32 and married. She was born in Russia, had two children living and had had no miscarriages. There was no history of tuberculosis or syphilis in the family. About five years previously, small, pea-sized nodules appeared on the alae and tip of the nose. At first there were about a half dozen. For the past year or so, new lesions had appeared and at the time of presentation there were about eighteen or twenty individual nodules, soft and easily penetrated by the point of a toothpick. The color was a brownish red.

About two years ago a verrucous lesion, about the size of a five-cent piece appeared on the index finger of the right hand, between the second and third phalanx. This lesion remained stationary up to the time of presentation. Physical examination of the patient's chest revealed an active pulmonary tuberculosis over the apexes of both lungs. The Wassermann test was negative.

DISCUSSION

DR. SATENSTEIN said he did not see any lupus vulgaris of the nose and was more in favor of acnitis.

DR. OULMANN said he regarded the lesions of the nose as lupus nodules and the lesions on the finger as tuberculosis verrucosa cutis.

DR. HOWARD FOX said he would not have thought of a diagnosis of lupus vulgaris in this case and agreed with Dr. Satenstein that it was probably a case of so-called acnitis.

DR. WISE agreed with Drs. Fox and Satenstein and thought this was not a true lupus vulgaris. These nodules might present a similar histologic structure, though they were not those of lupus vulgaris clinically, but rather acnitis. In true lupus vulgaris there was a formation of a patch with apple-jelly nodules, which were coalescent, with no spaces of clear, unaffected skin between, whereas in acnitis the lesions were disseminated.

DERMATITIS EXFOLIATIVA. PRESENTED BY DR. BECHET

The patient, a man, from the service of Dr. Trimble, noticed a dry, scaly eruption on his back and one month later an attack of herpes zoster occurred. Within a few weeks, the rash rapidly spread and in about two months became generalized, no part of the skin surface escaping. There was considerable keratosis of the palms and soles. He had never had any previous dermatosis. The scaling had always been excessive, but lately had responded to the use of bland ointments.

DISCUSSION

DR. OULMANN thought the cause of this condition had been a seborrheic eczema and that the generalized dermatitis exfoliativa had followed it.

DR. GOTTHEIL said that a general erythrodermia, which this case appeared to be, could hardly be called a dermatitis exfoliativa without the characteristic, large, adherent, paper-like scales being present.

DR. WISE asked if this condition did not come under the general heading of exfoliative erythrodermia. Under the heading of true dermatitis exfoliativa of Wilson, one observed a general reddening of the skin, which might or might not produce marked scaling.

DR. BECHET said this man had had an enormous amount of scaling, the scales being unusually large. The patient had been using a bland ointment and this had modified the scaling to a considerable extent. In answer to Dr. Oulmann, the speaker said that the disease had been very acute and had spread universally over the body in a few weeks. The fact that he had keratosis palmaris and plantaris also spoke against seborrheic eczema.

STEATOMA. PRESENTED BY DR. BECHET

This patient, a man, from the service of Dr. Trimble, stated that the lesions had been present for thirteen years. He presented for examination a large number of sebaceous cysts on the scrotum, several of which were as large as filberts. The orifice of a sebaceous duct could be seen in some of the lesions. From a few of the cysts semifluid sebaceous contents could be expressed on pressure.

ULERYTHEMA SYCOSIFORME. PRESENTED BY DR. SATENSTEIN

The patient was a colored* man, whose lesion began one year previously on the left cheek. When he first noticed it, there was a sharply circumscribed, slightly reddened area, about the size of a fifty-cent piece. This slowly increased in size. Three months later, the process began on the right side of the face. At no time were there any vesicles or nodules present. The lesion occupied almost the entire bearded portion of the face and neck, except the chin. The area was slightly infiltrated and there was a scarlike atrophy and whitish areas in the center. There were no depressions and no plugs under the surface of the scales. The patient had been under treatment at various clinics and had a negative Wassermann reaction. He was presented as a case of erythema sycosiforme of the type described by Unna, or the so-called lupoid sycosis. For further study a biopsy had been made, which confirmed the clinical diagnosis.

DISCUSSION

DR. BECHET thought this might probably be the correct diagnosis. He had presented a case at a previous meeting, with similar lesions, and the consensus of opinion at the time was that the condition was ulerythema sycosiforme.

DR. WEISS regarded this case as one of the aberrant type of sycosis, corresponding to what Unna called lupoid sycosis, in which the main symptom was follicular destruction, which was evident here, with a centrifugal development of the lesion and consequent scarring.

DR. ROSEN thought the case did not resemble lupoid sycosis. There were no active lesions present to warrant that diagnosis. The patient presented a

rather circumscribed, boggy scar, but no evidence of a sycosis or lupus erythematosus. The speaker thought the case was one of lupus vulgaris.

DR. OULMANN said he agreed with the diagnosis but had never seen a case in a colored man. He said he had shown a case of lupoid sycosis before the Society. Cases of this type did not always need to have pustules, but could be superficial with an infiltrated skin. There could be superficial scar formation and while the pustules came and went, they did not need to be there all the time.

DR. OCHS said he regarded this case as one of lupus vulgaris.

DR. WISE said he agreed with the exhibitor. His chief reason was that the disease was limited absolutely to the bearded region and did not encroach on the glabrous portion of the skin.

DR. HOWARD FOX thought the microscope would be necessary in this case to make a diagnosis of lupus vulgaris. He did not agree with Dr. Rosen that it was necessary to see distinct follicular pustules in order to make a diagnosis of sycosis, as many such cases revealed simply diffuse crusted patches, resembling an eczema.

DR. SATENSTEIN said the patient had told him that the process came on just as they saw it without any open wounds whatever. At no time were there any vesicles or pustules.

MULTIPLE SCLEROSES OF THE CHIN. PRESENTED BY DR. OULMANN

The patient was a man, aged 28, who had never been sick before. About eight weeks previously, a lesion appeared on the right lower lip and chin, which afterward became raised and hazel nut sized. The man developed enlarged glands on the right side, and one or two weeks later, after shaving, developed two other lesions with a glandular involvement. There was a general adenopathy. On the buttocks the patient had a leukoderma. The speaker regarded the case as one of multiple sclerosis. The Wassermann reaction had been ++++.

DISCUSSION

DR. SATENSTEIN said he thought these lesions were initial lesions of different stages. The central one had adenopathy, but those on the right side of the face had not had time for an adenopathy to develop.

DR. HOWARD FOX said that if this patient had had one single lesion instead of four separate ones, followed by glandular involvement, in which there was a ++++ Wassermann reaction, every one would have accepted it without question as an initial lesion. The speaker thought it a very unusual case, but agreed with the diagnosis.

DR. GOTTHEIL said that he had records of a number of cases of multiple specific inoculations. In one instance he had seen not less than thirteen distinct sclerosed lesions, forming a ring completely occupying the sulcus, and evidently due to simultaneous infection of an extensive herpes. In another instance there were seven distinct initial lesions, four of the face and lips and three of the penis. They were of different sizes and ages, as the patient had kept an accurate record of their appearance. This record was in agreement with their size and apparent age. All had appeared within the six weeks of the primary incubation. Other cases again had three and four sclerosis of the lips. Multiple syphilitic inoculations were rather rare, it was true, but they occurred with sufficient frequency to deprive the belief that the chancre was usually a single lesion of much of its importance.

DR. OULMANN said these lesions appeared at different times and seemed to have been caused by shaving, one place after another being infected. The patient stated he had not had any intercourse in a long time and no other infection. The right side had been first affected and the lesions were much less swollen at the time of presentation, the speaker said, than they had been in the beginning.

GUMMA OF THE TONGUE. PRESENTED BY DR. OULMANN

The patient was a man, aged 54, who had come to the clinic three weeks previously, showing a diffuse ulcerated tongue. The duration of the lesion had been one and one half years. The Wassermann reaction was + + + +. The speaker had not made a biopsy. The patient stated he had had a chancre twenty-four years previously. The lesion was painful but after specific treatment the pain had disappeared. The patient had received so far three mercurial and one salvarsan injection and was shown as a case of multiple gumma of the tongue.

DISCUSSION

DR. GOTTHEIL thought that there was undoubtedly a carcinomatous process present, possibly on the basis of an old gummatous lesion. There was entirely too much destructive action for a single purely gummatous lesion. Nevertheless, the patient should be given a short but intensive mercurial medication before resorting to radical surgical measures. Arsenic in any form should be carefully avoided. It was liable to occasion a sudden and violent extension of the carcinomatous process and shorten the patient's life.

DR. BLEIMAN said this case reminded him of one which had been presented by him some years previously, in which the diagnosis was in doubt, and he entered into the discussion to bring out what was brought up then. In lesions of the tongue physicians were never certain of their diagnosis. The diagnosis had not been made on his own patient, but at a subsequent meeting this patient had shown signs of a typical syphilis, including gumma of the tongue. When first presented there was some question of malignancy. He said that in this case he was much inclined to a diagnosis of malignancy and thought that in a very short time their doubts would be dispelled.

DR. SATENSTEIN said that he had asked the patient to raise his tongue and found that the infiltration ran right into the floor of the mouth, which was seen in infiltrated carcinoma.

DR. BECHET said that the lesion resembled carcinoma more than it did gumma, and he thought that the former diagnosis would eventually prove the correct one.

DR. PAROUNAGIAN thought the case one of carcinoma.

DR. OCHS said one should be very careful in giving salvarsan in such cases if they were malignant, as the drug had a stimulating tendency.

DR. WISE said he thought that a biopsy was justifiable in this case.

DR. PAROUNAGIAN said he did not agree with Dr. Ochs' statement, that it was a bad thing to give salvarsan in these cases. He believed that Dr. Pollitzer had expressed himself to that effect and the matter was discussed at one of the Academy meetings and Dr. Fordyce did not agree with that theory. The speaker had had a number of cases of leukoplakia of the mouth with a syphilitic history and they cleared up beautifully under salvarsan. If this were carcinoma, and it looked very much like it, he did not know but that the man would not have long to live, anyway, and he advised giving salvarsan.

DR. OULMANN said the reason he had made the diagnosis of syphilis, which had been confirmed by the Wassermann finding, was because of the amount of destruction and the manner of the destruction. He had found single regions excavated by multiple gummas. The condition had been present for a year and a half and under a little antisyphilitic treatment there had been a decided improvement. The condition was much worse than when presented and the patient could not swallow or talk. On presentation, he was able to eat and talk and had no pain. While the speaker did not doubt there was a possibility of a supervening epithelioma, he could see no indication for surgical interference as long as he could keep the patient comfortable, and as he was getting rid of the syphilitic symptoms, he was doing enough for the time. He did not see any indication for biopsies, only to verify the possibility of an epithelioma, for otherwise there would be no benefit. He intended to wait for the final result of the antisyphilitic treatment.

Review of Dermatology and Syphilis

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PRESSE MEDICALE

(May 24, 1917, No. 29)

Abstracted by PAUL E. BECHET, M.D.

TREATMENT OF VERRUCAE BY CONCENTRATED SUNLIGHT. E. VALLET, p. 299.

The technic of this method which Vallet found extremely efficacious, consisted of the use of an ordinary dermatologic magnifying glass and strong sunlight. While he recommends any lens with a magnification of at least four diameters, the particular glass used in his experiments was 7 cm. in diameter, with a focus of 9 cm. The rays of the sun are focussed to a small point on various parts of the lesion, the duration of the exposures being three to four seconds. One exposure is sufficient to cause the disappearance of small verrucae, larger ones require two exposures, rarely three.

(*Ibidem*, June 7, 1917, No. 32.)

THE TREATMENT OF PSORIASIS WITH INJECTIONS OF SULPHUR. LOUIS BORY, p. 331.

Bory uses the following formula, injected intramuscularly:

Precipitated sulphur	0.2
Eucalyptol	20 c.c.
Oil of sesame.....	80 c.c.

In a case of generalized psoriasis, with greatly infiltrated scaly plaques, the scales disappeared the third day after the injection, leaving erythematous bases which progressively faded and disappeared. No local treatment was used. He reports favorable results in four other cases, employing 5 c.c. doses injected into the gluteal muscles.

(*Ibidem*, June 14, 1917, No. 33)

THE TREATMENT OF BURNS WITH TAFFETA-CHIFFON ASSOCIATED WITH GOMENOLIZED OIL. ALGLAVE, p. 339.

The taffeta-chiffon is prepared by coating the surface of extremely fine tarlatan with linseed oil. The surface of the burn is covered with the gomenolized oil by means of a dropper or spray. The taffeta-chiffon, previously boiled four or five minutes, is placed over it. The taffeta is covered with sterile gauze and a layer of cotton, the whole being held together with a bandage. The dressings are changed after twenty-four hours. Gomenol is a French proprietary preparation. Alglave claims the complete cure, with the use of the above method, of second and third degree burns, in from two to four weeks.

RUSSKIY JURNAL KOZHNIKH I VENERICHESKIKH BOLIEZNEI

(*October, November, December, 1915, 30, Nos. 10, 11, 12*)

Abstracted by M. L. RAVITCH, M.D.

A CASE OF SCLERODERMA AINHUM. PAVLOVSKOI AND KARISHEVOI, p. 129.

This is the case of a young woman, aged 17, admitted to Kirrilovskoi Hospital suffering from peculiar changes in the fingers and toes.

Family and personal history were normal. Urinalysis negative; the blood count showed a slight leukocytosis. The phalanges of both hands and feet were thickened and swollen, some of them bearing sores the size of a dime. Both palms and soles were keratosed, sclerotic plates of different forms and sizes being especially thick on the fingers and toes and at their ends coalescing to form quite remarkable starlike and spiderlike excrescences. Roentgen-ray plates of the fingers and toes showed changes in some of the bones. The patient was unable to do manual labor owing to the condition of her fingers, but her general condition was satisfactory.

Such trophoneurotic conditions as Raynaud's disease, Parkinson's, Morvan's and Mirault-D'Angier's differ quite markedly from the above described condition. Syringomyelia resembles scleroderma ainhum to a certain extent, but vasomotor control and the sense of pain and temperature are lost in the former condition. Zambaco Pasha puts scleroderma ainhum under the class of lepra mutilans, but the authors do not agree with him, for in lepra mutilans sores and other lepra symptoms are met with. The patient cited in this article enjoyed perfect health except for the local lesions just described. The authors claim that this is the only case of its kind on record in Russia, though Posplev reported a case of "ainhum with scleroderma." Besnier and Barthélèmy think ainhum is a form of scleroderma. Leistikow divides scleroderma into two groups: circumscribed and diffused. Scleroderma ainhum comes under the diffuse type.

As to the etiology of the disease, opinions differ. Various causes have been advanced, but nothing definite has been settled. Since the etiology of this disease is so obscure it is rather difficult to pass on the pathologic changes that have been reported. According to Wolf, the pathologic and anatomic changes in scleroderma ainhum consist in the hypertrophy of the cutis and the subcutaneous tissue. He did not find any cellular or intercellular infiltration. The diffuse form of scleroderma anatomically differs very little from the circumscribed form.

As to the therapy of the disease, the authors acknowledge the ineffectiveness of any remedies; thiosinamin, thyroid extract and other medicinal agents were of no avail.

TREATMENT OF FACIAL ERYSIPELAS WITH METHYLENE BLUE. NOBECOURT, p. 145.

Bogrov, reviewing Nobecourt's article, states that the latter had success with methylene blue in erysipelas of the face. A 5 per cent. aqueous solution of methylene blue applied to the face diminished pain, swelling and exudation. The duration of the infection is also greatly shortened.

TREATMENT OF SCARLATINA WITH SODIUM SALICYLATE. RAMOND, p. 146.

Bogrov quotes Ramond's method of treatment with sodium salicylate. Even the very worst cases were benefited by this treatment. The author begins with 2 to 5 grains, several times a day. No ill results were noticed in any of the cases under this treatment.

TREATMENT OF DERMATO-UROLOGIC DISEASES WITH IODIN VAPOR. OTA, p. 147.

Bogrov reports the results obtained by Ota with iodine vapor. The employment of iodine vapor in surgical cases was advocated in 1910, Logue and Jungel and afterwards Farnanier and Norman using it in tuberculosis of the bladder. Ota claims he had considerable success with this treatment in lupus vulgaris, scrofuloderma, eczema marginatum and sycosis vulgaris. In tuberculosis of the skin it caused the scabs to fall off and sores to granulate with very little scar formation. Eczema marginatum was cured in one séance, sycosis vulgaris in three treatments. In tuberculous cystitis fifteen séances of this treatment given in three months, effected a complete cure.

PRESERVATION OF THE BACILLUS LEPRÆ IN DEAD BODIES. ARNIG, p. 150.

Bogrov quotes Arnig's investigations while in the Sandwich Islands as to the presence of lepra bacilli in the dead and decomposed bodies of lepers. He found the lepra bacilli in bodies that had been interred from two to six months.

ADIPOSIS DOLOROSA OR DERCUM'S DISEASE. KOPITKO AND LARIANOV, p. 151.

According to Bogrov's report, these two authors described a case of Dercum's disease. The patient, a woman, aged 27, had all the symptoms of this disease, including asthenia, partial loss of memory, nervous disturbances, increased deposits of fat in the subcutaneous tissues and other features, such as diminution, alteration and abolition of tactile and temperature senses. There seemed to be a considerable decrease in the secretory activity of the thyroid gland, as in myxedema. That disturbed function of the thyroid gland is an important etiologic factor in adiposis dolorosa was substantiated by the improvement, though not cure, which followed administration of desiccated thyroid gland.

A CASE OF KERATOCONUS OCCURRING IN DIFFUSED SCLERODERMA. NILOSLAVSKAYA, p. 157.

In Niloslavskaya's case, according to Bogrov, keratoconus first appeared in the left eye, later in the right. The patient was suffering from an extensive diffuse scleroderma of the head, hands and lower extremities. The eyelids were also sclerosed. The case had first been diagnosed as Raynaud's disease, but after two and one half years' observation it was found that she was suffering from diffuse scleroderma with the above mentioned phenomena; in addition she had attacks of hysteria. No pathogenesis of her disease could be given.

ESCUELA MEDICO MILITAR

(July, 1917, 1, No. 2)

Abstracted by V. PARDO, M.D.

CUTANEOUS LEISHMANIOSIS IN CHICLET WORKERS. ERNESTO CERVERA, p. 9.

Cervera presents one case of this disease, due to the parasite known under the name of *Leishmania brasiliensis*. The patient was a man working in the woods at Yucatan (Mexico), where they obtain the raw gum (chiclet) by primitive methods; he presented an ulceration situated on the helix of the left ear which began as a small nodule several months before. Specimens taken from this ulceration showed the presence of the parasite, a round corpuscle, 3 microns long by 2 microns wide, with an irregular and rather eccentric nucleus and a faintly stained protoplasm.

The author states that the disease is very frequent in Yucatan and Campeche (Mexico) among the people working in the country. There seems to be no relation between the kind of work the patients do and the cutaneous manifestations.

JAPANISCHE ZEITSCHRIFT FÜR DERMATOLOGIE UND UROLOGIE

(April, 1916, 16, No. 4)

Abstracted by M. F. LAUTMAN, M.D.

CONTRIBUTION TO THE HISTOLOGY OF POROKERATOSIS (MIBELLI). MATSUMOTA, p. 293.

The disease in this case involved an area 12.5 by 11.0 cm. in diameter and had existed on the forehead of a 46 year old healthy man for about 20 years. The individual lesions appeared as punctate, comedolike nodules and histologically demonstrated the fact that the hair follicles as well as the openings of the sweat glands were involved.

LEPRA BACTEREMIA. CHOJO, p. 308.

MERCURY AND ARSENIC IN THE TREATMENT OF SYPHILIS. NAKANO, p. 299.

(Ibidem, June, 1916, 16, No. 6)

EXPERIMENTS WITH A NEW MERCURIAL PREPARATION "IMAMICAL." ITO, MATSUZAKI, MITSUHASHI AND KUROKAWA, p. 479.

Imamical is sulphosalicylic acid-mercury sodium and contains about 27 per cent. of mercury. The authors observed good results from its use in twenty-four cases of syphilis and never encountered any of the unpleasant urinary or alimentary by-effects that are so frequently caused by the bichlorid.

(Ibidem, July, 1916, 16, No. 7)

REPORT ON THE USE OF PITYROL, A NEW DERMATOLOGICAL REMEDY. MATSUURA, p. 573.

The author has used pityrol, which is a fatty substance made from rice, in over twenty varieties of skin conditions ranging from folliculitis and all forms of eczema to and including lupus vulgaris and chancroid, and has obtained excellent results from its use in all these conditions.

A FURTHER STUDY OF LAC-DERMATITIS. TOYAMA AND KAYABA, p. 578.

(*Ibidem*, August, 1916, 16, No. 8)

THE ACTION OF COPPERCYANURCYANKALI AND CERTAIN DOUBLE SALTS OF COPPER AND POTASSIUM ON TUBERCLE AND LEPROBACILLI. SUGAI, p. 641.

CLINICAL OBSERVATIONS ON ARSAMINOL-NATRIUM. A NEW ANTISYPHILITIC. ANDO, p. 674.

(*Ibidem*, September, 1916, 16, No. 9)

EXPERIMENTS WITH JAPANESE SALVARSAN PREPARATIONS. DOHI, NAKANO AND KAMBAYASHI, p. 727.

The authors have conducted extensive experimental and clinical observations on the Japanese salvarsan preparations and have found them equally as potent but distinctly less toxic than the German salvarsan.

HISTOLOGICAL STUDIES OF ACNE AND ITS ETIOLOGY. SAKAGUCHI, p. 797.

This observer has studied biopsies taken from thirty-four cases of acne and concluded that the hyperfunction and altered secretion of the sebaceous glands favored the growth of the acne bacillus which in turn produced an irritation and hyperkeratosis of the ducts of these glands. The obstruction in the duct produces stasis of the secretion with the formation of a seborrheic filament or plug. Secondary infection of this plug (comedo) with staphylococci is necessary for the production of an acne pustule and was regularly found in all the cases.

AMERICAN JOURNAL OF SYPHILIS

(July, 1917, 1, No. 3)

Abstracted by W. H. GUY, M.D.

THE TREATMENT OF GENERAL PARESIS. HANSON S. OGILVIE, p. 509.

The results obtained in fifty-five cases of paresis treated intraspinaly, using the technic elaborated and previously reported by the author, confirm the prevailing opinion that therapy by the intraspinal route is far superior to any other treatment known today. Broadly considered the disease is only held in abeyance for a period dependent on the extent of its activity at the time treatment is instituted. When the classical syndrome is clinically established we are dealing with atrophic parenchymatous degeneration of brain tissue and comparatively little can reasonably be expected from any therapeutic agent. It is the consentient opinion of authorities generally that invasion of the nervous system occurs prior to or during the secondary stage of the infection and that with early detection, and prompt application of adequate therapeutic measures, general paresis will in far distant years become a comparatively rare picture in medicine.

OBSERVATIONS ON TYPES OF RESPONSE IN TREATMENT OF THE CENTRAL NERVOUS SYSTEM. HOMER F. SWIFT, p. 524.

Syphilis of the central nervous system being classified according to the time of infection, clinical picture and laboratory findings, the response to treatment by the intravenous and intraspinal methods leads the author to conclude that it is of importance to determine what symptoms are due to degeneration and what are due to inflammation or exudation. Lesions due to inflammation or exudation are much improved or eliminated by general treatment of the patient, while those due to degeneration are little if any affected. In early meningitis and those cases

formerly termed tertiary syphilis of the central nervous system, the symptoms are usually due to inflammation or exudation and respond correspondingly well to the general administration of salvarsan, mercury and potassium iodid, only an occasional case of this type requiring intraspinal therapy. Some tabetics respond well to general treatment, others only to the intraspinal or combined method, treatment being continued until the cerebrospinal fluid is normal and remains so, except for slight persistent increased globulin which may be disregarded. In paralytic dementia, while much benefit may be expected in increasing the number and length of remissions, the hope of ultimate recovery is slight. Patients potentially paretic by virtue of a paretic type gold curve in their spinal fluid should be treated intensively from the first with the expectation of better results than when clinical symptoms of the disease are present. Treatment should be individualized, given in courses, and the condition of the fluid determined at the beginning and end of each course.

COMPLEMENT FIXATION IN SYPHILIS. LOYD THOMPSON, p. 555.

Wassermann's original technic and its various modifications are detailed and certain pertinent objections offered against them. The author has devised a method which he states is open to none of the objections to which methods already proposed are subjected. Active serum is used, complement in each serum being titrated. Amboceptor is obtained by immunizing rabbits against human cells. The antigen used is the acetone insoluble lipoids of Noguchi and Bronfenbrenner. The corpuscles are human red cells obtained from any convenient source and prepared in the usual manner. The exact technic may be obtained by referring to the original article.

AORTIC ANEURISMS AND DILATATIONS. PAUL G. WOOLLEY, p. 582.

The author believes that a relatively high percentage of aneurisms are due to syphilis, especially in cases below 50 years of age. Cases are reported including post-mortem findings to illustrate various aortic dilatation effects of syphilis.

SEROLOGICAL EXAMINATION OF OVER TWO HUNDRED CHILDREN FROM THE OPEN AIR SCHOOLS OF ST. LOUIS. CHARLES D. JOHNSON, p. 606.

A group comprising two hundred and twenty-four children presenting clinical symptoms of anemia and malnutrition were examined serologically with the following results: 16.5 per cent. were ++++; 17.4 per cent. were +++; 9.8 per cent. were ++; and 12.5 per cent. were +, the remaining cases being negative. Of cases showing both positive Wassermans and von Pirquets there were 20.7 per cent., 14 per cent. being negative for both. Positive Wassermans and negative von Pirquets were found in 27 per cent., and 20 per cent. had positive von Pirquets and negative Wassermans.

THE VALUE OF COMPLETE EXAMINATION OF THE EAR IN SYPHILIS. JESSE WRIGHT DOWNEY, p. 616.

Twenty-eight cases of syphilis with aural manifestations are reported together with an outline of diagnostic methods for locating the pathologic process, and the author concludes that aural syphilis may occur at any stage of the infection and involve any part of the aural apparatus. Ear symptoms due to syphilis are not necessarily of grave import and particularly in incipient cases the response to proper specific medication is prompt.

THE PRESENTING SYMPTOMS IN THREE HUNDRED CONSECUTIVE CASES OF SYPHILIS. R. H. LAFFERTY AND S. R. THOMPSON, p. 624.

Three hundred cases of syphilis are reported with a tabulation of the symptoms for which patients sought relief. The paper is presented to show the great variety of ways in which the disease manifests itself.

THE PROVOCATIVE WASSERMANN TEST IN THE CLINICAL DIAGNOSIS OF SYPHILIS. JOHN H. STOKES AND PAUL A. O'LEARY, p. 629.

From a study of one hundred and three cases in which an injection of salvarsan was given to provoke a Wassermann after a negative test, presumptive but not conclusive evidence of the existence of a provocative effect was obtained. The provocative Wassermann seemed to be of little value in the absence of clinical evidence of the disease, and to be inferior both to clinical judgment and the therapeutic test in the recognition of obscure cases. Findings in seventy-two repeated Wassermans served as a control for the series of cases reported.

CASES OF HYPERTROPHIC CIRRHOSIS OF THE LIVER. PAUL G. WOOLLEY, p. 649.

Three cases of hypertrophic cirrhosis of the liver are reported. Syphilis and alcoholism were possible etiologic factors suggested by the history. In two cases the syphilitic element was demonstrated by necropsy findings.

LUETIN REACTION IN CARDIOVASCULAR-RENAL DISEASES. DUDLEY FULTON AND ROLAND CUMMINGS, p. 663.

Twenty-eight cases, none of which had had potassium iodid for several weeks, were subjected to the luetin reaction, results being controlled by serologic findings. The authors were led to conclude that either the luetin reaction is unreliable or syphilis is not a common etiologic factor in conditions named in the subject of their paper.

A NOTE ON THE TREATMENT OF SYPHILIS WITH GALYL. LOYD THOMPSON, p. 665.

The author reports sixty injections of galyl administered to twenty-eight patients without untoward symptoms and with results equal to those obtained with other arsenicals.

JOURNAL OF TROPICAL MEDICINE AND HYGIENE

(*Nov. 1, 1916, 19, No. 21*)

Abstracted by R. C. JAMIESON, M.D.

TREATMENT OF FILARIASIS AND ELEPHANTOID CONDITION BY INTRAMUSCULAR INJECTION OF SALVARSAN. J. G. McNAUGHTON, p. 249.

Three-tenths gm. of salvarsan intramuscularly was used for injections in these cases of elephantiasis with good results in all. The author believes that elephantiasis could be exterminated if all cases reacted as did those in this report.

(*Ibidem, April 16, 1917, 20, No. 8*)

NOTES ON A CASE OF PELLAGRA. A. VISYALINGAM, p. 85.

Report of a case of pellagra which is published on account of the rarity of the disease in the locality of its occurrence (Taiping, Malay States).

(*Ibidem, May 5, 1917, 21, No. 10*)

THREE CASES OF VENEREAL GRANULOMA TREATED WITH TARTAR EMETIC. C. BONNE, p. 109.

This article is a report from Paramaribo, Surinam, South America, and states the results obtained in three cases of inoperable venereal granuloma by treatment with tartar emetic, intravenously. The technic described is identical with that for

salvarsan, a solution of tartar emetic being used, 1 mg. to 1 c.c. of saline, injections being given twice a week starting with 60 mg. and increasing to 150 mg. Pain soon disappears and healthy granulations soon begin to replace the ulceration. Slight coughing and occasionally a rise in temperature occur after injections. It is not known yet whether relapses will occur or not after this treatment.

ANNALES DE L'INSTITUT PASTEUR

(February, 1916, 30, No. 2)

Abstracted by R. C. JAMIESON, M.D.

TRANSMISSION OF LEPROSY BY FLIES. E. MARCHOUX, p. 61.

The writer found that the germs are carried on the legs of the flies and are found in the intestines although they do not die there. Infection occurs at the time of close association with the patient as the bacilli which are deposited by the flies quickly dry up and die after leaving the carrier.

(*Ibidem*, March, 1917, 31, No. 3)

PHYSICOCHEMICAL PROPERTIES OF THE PRODUCTS OF THE ARSENOBENZENE GROUP. J. DANYSZ, p. 114.

This article is summed up in the following conclusions: The compounds are not eliminated except after transformation into soluble compounds in neutral mediums, and not precipitable by salts after passing from a colloidal state to a state of salts which have no longer affinity for the substance of the organism. This transformation occurs in two reactions—precipitation and dissolution.

Formation of the precipitate can cause trouble more or less depending on the quantity of the precipitated substance and the time during which they remain in this form.

Dissolution of the precipitate results from the combination of arsenobenzene with certain organic bases and from their sulfonation, which results in thus forming very stable compounds soluble in neutral mediums and which cannot be precipitated by salts.

The first injection immunizes the organism against the precipitate reaction of the following injections, which indicates that the first injection produces in the organism a continuous formation of soluble products. In certain cases there is inhibition of the function of secretion of soluble products and the organism becomes more sensitive to the second injection.

AMERICAN JOURNAL OF THE MEDICAL SCIENCES

(July, 1917, 154, No. 1)

Abstracted by R. C. JAMIESON, M.D.

SYPHILITIC AORTITIS. A. R. ELLIOTT, p. 14.

This article serves to emphasize the fact of the frequency of syphilis of the aorta especially in latent cases, although progress of the disease is rapid after the valves become affected. Eighty per cent. of cases have a positive Wassermann, the roentgen ray and the Wassermann reaction being the most valuable aids in the diagnosis of aortic conditions.

AMERICAN MEDICINE

(June, 1917, 12, No. 6)

Abstracted by OSCAR L. LEVIN, M.D.

SCLEREMA NEONATORUM; A DESCRIPTIVE CASE. GEORGE DOW SCOTT, p. 451.

The case reported is that of an infant, 6 weeks old, who showed extensive involvement of the buttocks. Resolution occurred under local treatment with goose grease and the internal administration of the syrup of iron.

THE SUCCESSFUL TREATMENT OF SCARLET FEVER. I. L. VAN ZANDT, p. 468.

As a result of sixteen years' experience with the local application and the internal administration of colloidal silver in the treatment of scarlet fever, the writer claims that this preparation is specific for this disease.

For adults, 1 dram of a 15 per cent. unguentum Credé is rubbed into the skin once or twice daily according to the degree of fever. The dose for children is regulated according to the size of the patient. The drug is also given in solution per rectum, 10 to 15 grains, twice daily when the temperature is high, and once daily when fever is absent.

MEDICAL JOURNAL OF AUSTRALIA

(August 11, 1917, 2, No. 6)

Abstracted by OSCAR L. LEVIN, M.D.

OBSERVATION ON THE PATHOLOGY OF BARCOO ROT (VELD SORE), WITH SUGGESTIONS AS TO TREATMENT. C. J. MARTIN, p. 118.

As a result of his observations on twenty cases occurring in Australian soldiers, the author believes that Barcoo rot and veld sore are closely allied, if not identical diseases.

Microscopic examination of infected hairs and cultures from the bases of removed hairs and from the contents of early blebs showed the presence of staphylococci, the *Staphylococcus albus* predominating.

It seems probable that the disease is caused by the infection of the epidermal structures with staphylococci of low virulence, such as abound on the skin. Under normal conditions the cocci of low virulence are not able to overcome the local defences, but in the case of men too long on a restricted diet, the defense is weakened and they are able to infect the epidermis, but not the true skin.

The author's treatment consists in the removal of the hairs occurring in the lesions and in their vicinity.

EDINBURGH MEDICAL JOURNAL

(June, 1917, 1, No. 6)

Abstracted by OSCAR L. LEVIN, M.D.

DERMATOLOGY IN RELATION TO CHILD WELFARE. NORMAN WALKER AND R. CRANSTON LOW, p. 396.

The writers discuss the necessity for prophylactic measures, to prevent the spread of pediculosis and impetigo, tinea capitis, favus and scabies among children. Norman Walker emphasizes the value of the social worker as an adjunct

to the hospital and dispensary for following up of cured cases, to prevent reinfection and discover unreported cases.

Low suggests the supervision of all pediculosis capitis cases by the public health authorities, the isolation of victims of the disease and the thorough disinfection of the schools.

Both writers claim that much can be done to prevent the spread of pediculosis capitis if all girls wore their hair in pigtails.

UROLOGIC AND CUTANEOUS REVIEW

(July, 1917, 21, No. 7)

Abstracted by OSCAR L. LEVIN, M.D.

THE DERMATOLOGIST AS AN INTERNIST. JOHN L. MURRAY, p. 365.

The writer makes the following conclusions: Etiology is the most important chapter in the study of the skin. The great majority of common skin diseases are due either entirely to internal disorders or the internal condition is a contributory factor. A careful routine examination should be made in every case, and it is advisable to have a printed history and physical examination chart. A copy of the author's chart is appended.

AMERICAN JOURNAL OF ORTHOPEDIC SURGERY

(May, 1917, 15, No. 5)

Abstracted by OSCAR L. LEVIN, M.D.

TABETIC SPINAL ARTHROPATHY (CHARCOT'S SPINE) TREATED BY INTRADURAL INJECTIONS OF MERCURIALIZED SERUM. R. WALLACE BILLINGTON, p. 357.

The patient was given four injections of mercurialized serum, $\frac{1}{40}$ grain of bichlorid at each injection, with improvement in the general symptoms but no apparent checking of the progress of the vertebral disease.

MEDICAL RECORD

(Oct. 6, 1917, 92, No. 14)

Abstracted by C. C. TOMLINSON, M.D.

THE NECESSITY OF FURTHER ADMINISTRATIVE CONTROL OF SCALP DISEASES IN CHILDREN AND ADULTS. WALLACE A. MANHEIMER, p. 587.

The author summarizes the statistics, taken principally from the records of the New York Board of Health, which were taken to show the prevalence of the more common infections of the scalp and face. The following statistics are given to show the need of further administrative control:

Of 266,426 children examined by the New York Board of Health in December, 1910, 59 per cent. had pediculosis, with a resulting loss of school time amounting in one school to 1,830 days out of a total of 6,960 days lost through all causes.

Of the 266,426 examined, 9,052 had impetigo contagiosa and 4,805 had ringworm.

Attention is called to the increase of leprosy in this country as shown by Pollitzer in an article in *THE JOURNAL* (1916, 34, p. 55) in which he states that there are between 500 and 1,000 unrecognized cases in the United States.

Accepting the figures that there are 10,000,000 syphilitics in the United States, the experience of Montgomery and of Bulkley are quoted, showing that 10 per cent., or 1,000,000, have acquired the disease innocently.

Special attention is called to the transmissibility of infection by the trying on of hats and as a means of preventing infection from this source, a paper skull cap is suggested which would be inexpensive and could be discarded after use.

NEW YORK MEDICAL JOURNAL

(*Aug. 11, 1917, 106, No. 6*)

Abstracted by C. C. TOMLINSON, M.D.

DIAGNOSTIC TEETH. PERCY WILLARD ROBERTS, p. 256.

The author emphasizes the importance of a routine examination of the teeth as a valuable aid in the diagnosis of obscure lesions due to inherited syphilis.

The following dental anomalies are considered equally as important as the Hutchinson tooth: 1. Cuspal erosions of the first permanent molars. 2. Multiple and systematic dystrophies of the permanent teeth. 3. Multiple dystrophies of the deciduous teeth. In addition to these and considered due to syphilis in at least 80 per cent. of the cases, are the absence of dental units, symmetrical erosions of various kinds, striking irregularities of form and distribution and anomalies of spacing.

In the last condition the author calls special attention to widely spaced upper central incisors and presents several photographs and case histories in illustration. He does not, however, consider this condition pathognomonic of syphilis.

Any of these otherwise trivial dental anomalies may act as a clue to the pathology of an active lesion elsewhere in the body. It is not considered possible for tuberculosis or rickets to produce these various dental anomalies.

(*Aug. 18, 1917, 106, No. 7*)

A PARAFFIN WAX TREATMENT FOR BURNS. CHARLES AUGUSTUS BEHNEY, p. 312.

As a substitute for ambrine discovered and commercialized by Barthe de Sandfort, Behney, from a study of the requisites for such a preparation, adopted the following formula which he claims has met all requirements:

Paraffin (M. P. 40 C.) 87 per cent., beeswax (yellow) 10 per cent., white resin (turpentine) 3 per cent.

The lesion is first irrigated with sterile water or normal salt solution and dried, a thin layer of wax is then applied with a camel's hair brush or an atomizer, allowing the wax to extend an inch beyond the margins of the lesion. A very thin layer of cotton or gauze is then applied and followed by a second layer of the wax, care being taken to seal down the margins of the dressing to the normal skin.

The advantages claimed for such a dressing are, that it relieves pain, is easily removed, lessens toxic absorption, minimizes the formation of scars, promotes the separation of devitalized tissues and allows the patient to become ambulatory earlier. The dressing should be applied as soon as possible for the first dressing

and used for all subsequent dressings. The best results are obtained by redressing every twenty-four hours.

(Sept. 1, 1917, 106, No. 9)

TABES DORSALIS. MORRIS GROSSMAN, p. 402.

The author bases his report on the study of 240 cases of undoubted tabes and summarizes his findings as follows: 1. The average age of syphilitic infection, dated from the primary chancre, was 24.4 years. 2. The average age of the onset of tabes in 238 cases was 39 years. 3. No detectable difference exists in the age of onset of tabes in those patients treated with antisyphilitic remedies and the age of onset in those untreated or presumably less treated. 4. The average pretabetic interval is not greater than 14.6 years. 5 The pretabetic interval in the young may, but seldom does, last for a shorter period than in the more mature. 6. The resistance of the central nervous system seems to deteriorate with age.

(Sept. 8, 1917, 106, No. 10)

THE TREATMENT OF PARESIS. BITTON D. EVANS AND FREDERICK H. THORNE, p. 437.

The authors report twenty-three cases which they treated intraspinally with salvarsan, neosalvarsan and albuminate of mercury.

The smallest number of treatments given to one patient was three, and the largest number, twenty. The Wassermann reaction was temporarily reduced to negative with the blood serum of one patient and with the cerebrospinal fluid of three. Three patients showed some mental and physical improvement, four died during the course of treatment, and six, several months after the treatments were discontinued. Ten are living and are markedly demented. The authors conclude that they have found little or no therapeutic value from intraspinal treatment in parietic dementia.

Book Reviews

THE NATION'S HEALTH. BY SIR MALCOLM MORRIS, M.D., K. C. V. O.
Member of the British Royal Commission on Venereal Diseases and of
the Executive Committee of the National Council for Combating Venereal
Diseases; Author of "Diseases of the Skin," etc. (143 pages). New York:
Funk & Wagnalls Company, 354-360 Fourth Avenue.

Pursuant of the fixed policy of the Royal Commission on Venereal Diseases to "drag it out into the open," Dr. Morris presents *The Nation's Health*, dealing with the stamping out of venereal diseases. Couched in simple English, the book comprises an outline of the manner of communication of venereal diseases, their effects, individual and economic, suggestions as to their proper treatment and a discussion for and against the various methods used in efforts to control the venereal plague. Boards of health, sanitary and civil authorities, social workers, and interested laymen generally, to whom the book is addressed, will find much of interest and of practical importance to repay them for the hour or two necessary to read it.

W. H. G.

CANCER, ITS CAUSE AND TREATMENT. BY DUNCAN L. BULKLEY,
A.M., M.D.

Senior Physician to the New York Skin and Cancer Hospital, etc. Vol. 1.
Paul B. Hoeber Company, New York, 1917 (271 pages).

It requires courage and strong personal convictions to publish revolutionary theories, and from that point of view, credit is due the author of *Cancer, Its Cause and Treatment*. To label cancer as a derangement of protein metabolism incident to the diet and manner of living in this age of advanced civilization, and as a condition curable in many cases, preventable in all, by correct diet and right living is to present "something startling, something new." However, this is not all theory—a definite plan of treatment is presented and cured cases are reported. In arriving at conclusions, physical and laboratory findings are reported; surgical statistics and mortality tables are analyzed, and the influence of such factors as age, sex, occupation, race, climate and food considered. The book embodies a series of lectures which were given before practicing physicians at the New York Skin and Cancer Hospital during November and December, 1916, and represents opinions largely personal to the author.

Epithelioma of the skin (basal cell) is eliminated from discussion, because it is a local disease, little influenced by constitutional causes or treatment, and because it responds readily to local measures. Gloomy surgical statistics in carcinoma form the basis of a sweeping condemnation of operative measures, passing mention being made of better results obtained by early diagnosis and operation. The reader is left under the impression that cancer is a disease in which surgery is rarely necessary, usually contraindicated, and in which treatment by the author's plan will yield better results than by any other method.

W. H. G.

THE JOURNAL OF CUTANEOUS DISEASES

VOL. XXXVI—No. 3

MARCH, 1918

WHOLE No. 424

Original Communications

LOCALIZED AREAS OF ATROPHY OF FAT CELLS IN DERMA AND SUBCUTANEOUS TISSUE *

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CASE REPORT

The patient, a girl, aged 19, was admitted to the Students' Hospital and Dispensary, Oct. 2, 1916. Her complaint was that her "left leg is getting smaller than the other." She had been under the care of a physician who had informed her that she was suffering from muscular atrophy. Having learned of the seriousness of muscular atrophy, she was greatly perturbed over her condition.

The family history was negative. Her parents, two brothers, and two sisters were living and well.

The patient had had scarlet fever at the age of 6; measles at 7; mumps at 7; chickenpox at 9; whooping cough at 11; and a tonsillectomy had been done when she was 17 years old. She stated that as a child she was tired more or less all of the time and did not want to play with the other children, and that she had "never had any color." During her high school period she was inclined to be emotional—depressed at times and at other times hysterical. She remained out of high school for one year on account of headaches. The onset of puberty was uneventful. No menstrual disturbances were noted, except that she had been inclined to be somewhat irregular.

During the past two or three years she lost about 10 pounds. At times she had noted shortness of breath and palpitation. Her appetite has always been good. She had not been conscious of any capricious appetite except an excessive desire for chocolate. She has been troubled with constipation. No hyperacidity or distress after eating

* Received for publication Oct. 13, 1917.

has been noted by her. According to her, all organs of the body have seemed normal.

When I first examined the patient her skin was somewhat yellowish green. Examination of the blood revealed the following characteristics: Red blood cells, 3,808,000; white blood cells, 8,000; hemoglobin (Sahli), 75 per cent. A slight poikilocytosis was noted. No other abnormal blood findings were present. The physical examination revealed no other pathologic conditions except atrophic areas on the left leg, which are described in detail later.



Fig. 1.—Anterior view of extremities. Note the appreciable decrease in the circumference of the left leg at the level of the middle of the thigh and leg.

Notwithstanding the fact that the case had been diagnosed as “muscular atrophy of the left leg,” examination showed that all extensors, flexors, rotators, and abductors were as strong and fully developed in the left leg as those in the right leg. The reflexes and cutaneous sensations were normal.

My diagnosis of the case was chlorosis. Although the curious yellowish green tinge was sufficient to suggest this diagnosis the hemoglobin was unusually high for this condition. She stated, how-

ever, that she had been "given medicine for her blood." Doubtless the hemoglobin content had previously been much lower.

Gross Characteristics of the Atrophic Areas.—Two areas of atrophy were present on the left thigh and leg. The larger and more conspicuous one was triangular in shape and occupied about the entire area of Scarpa's triangle. The atrophy here was most pronounced over the rectus femoris muscle (Fig. 1).

Prominent dilated veins, tributaries of the long saphenous (vena saphena magna) were present, and gave to the skin in this area a



Fig. 2.—In Scarpa's triangle of the left thigh the atrophy is easily seen. Note the prominence of the rectus femoris muscle, the numerous, minute pit-like depressions, and the dilated vein.

bluish tint. On close inspection, minute, slight, pitlike depressions of irregular shapes and sizes were seen (Fig. 2). Otherwise, the skin appeared normal, except for a small, slightly reddish patch more or less circinate in shape and covered with fine scales. This patch suggested ringworm and yielded readily to local treatment for such a condition. On palpation, the skin was soft and elastic. It could be readily pinched between the fingers. On rubbing the fingers over this area, one felt in the subcutaneous tissue strands of connective tissue which were most prominent over the rectus muscle.

The second area of atrophy was found on the anterior surface of the leg beginning 7 cm. below the lower margin of the patella. It measured about 15 cm. long and 10 cm. wide, but had no definite boundary as the margin gradually faded into normal skin. The atrophy in this location was not so pronounced as that in Scarpa's triangle.

No abnormal changes were found in any other part of the leg or thigh. Figure 1 shows that the lateral and median surfaces of the extremities were normal. The posterior aspect was also normal.

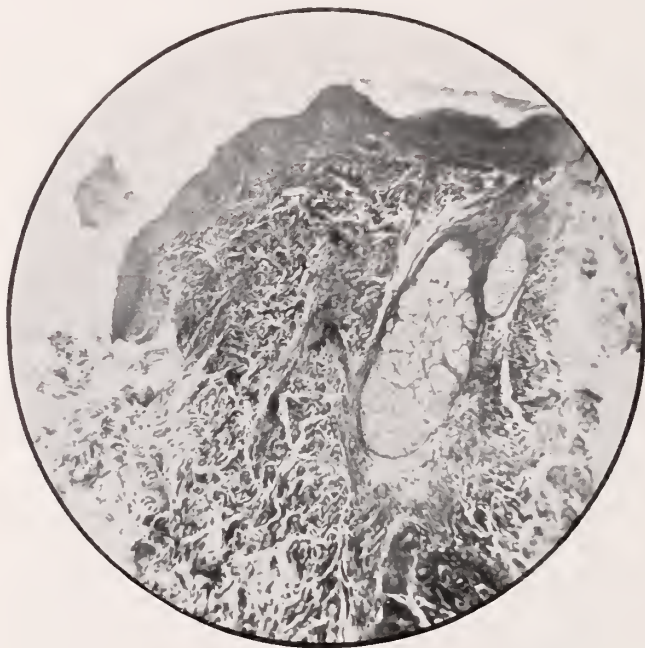


Fig. 3.—Photomicrograph. Low power. The sebaceous glands are very prominent in the section due to the complete atrophy of surrounding fat cells.

Measurements taken at the middle of the two atrophic areas showed that there was a decrease in the circumference of the affected left limb. The following measurements were taken:

(1) Left thigh, 24 cm. below anterior superior spine, circumference, 43 cm.; right thigh, same point of measurement, circumference, 48 cm.

(2) Left thigh, 7 cm. above superior margin of patella, circumference, 34 cm.; right thigh, same point of measurement, circumference, 38 cm.

(3) Left leg, 11 cm. below lower margin of patella, circumference, 32 cm.; right leg, same point of measurement, circumference, 34 cm.

From about the center of the atrophic area, a small piece of skin, including the underlying subcutaneous and deep fascia down to the muscle, was removed under local anesthesia. The average thickness of the piece removed was 3 mm. Tissue was not removed from this area from the other leg for comparison, but it was estimated that the thickness of the skin and subjacent tissues due primarily to the fat deposit was at least 1 to 1.5 cm. The difference in thickness between similar areas from the normal leg and the atrophic leg would in all probability be between 0.7 and 1.2 cm.

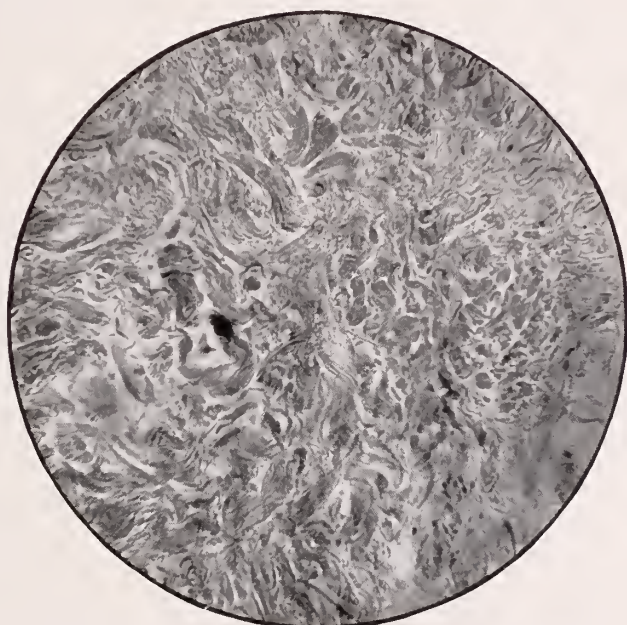


Fig. 4.—Photomicrograph. High power. This was taken from about the center of Scarpa's triangle. Dense sclerotic connective tissue with no nuclear elements.

In the process of dissecting out the area for microscopic study, I noted the complete absence of macroscopically visible adipose tissue.

Microscopic Appearance.—Microscopic examination revealed the following conditions:

The epidermis was normal in structure and staining characteristics, except the corneum, which was more scaly than usual. The various other strata—germinativum, granulosum, lucidum—were normal in appearance. The last two were not in much evidence in this section, and may be regarded as normal.

The cutis was composed almost entirely of dense fibrous connective tissue. No differentiation of the strata papillare and reticulare could be made out. The latter possessed relatively few elastic fibers.

In fact, the entire cutis and subjacent fascia down to the muscle were composed of dense fibrous connective tissue. No fat cells were present. Very few nuclear elements were seen. When present, they were observed only in the cells of the various glands and other ducts, and of the capillary walls. Nuclei were seen only rarely in this dense fibrous tissue and then they were lymphoid in structure. No plasma-cells, mast-cells, clasmotocytes or polymorphonuclear cells were present. There was an appreciable decrease in the subcutaneous blood capillaries and lymph vessels (Fig. 3).

In certain areas the fibrous tissue had a gelatinous appearance. This did not react to mucous stains. The sebaceous and sudoriparous glands had not been affected in this subcutaneous atrophy and were normal both in structure and staining characteristics. They were especially prominent because of the atrophy of the subcutaneous tissue (Fig. 4).

The alterations observed were due to the complete disappearance of fat and an apparent hypertrophy of the fibrous tissue.

No bacteria or other evidences of inflammation were found.

COMMENT

A recent article by Gilchrist and Ketron¹ describes a unique case of atrophy of the fatty subcutaneous tissue. The atrophy was manifested in the form of numerous dimplelike depressions, varying in size from that of a pea to large "sunken, morphea-like patches, which were round, irregular or band-like, and attained to an area the size of 10 by 4 cm. The depth of the atrophy varied from something scarcely perceptible in the smaller areas to about 2 mm. in the larger ones." These pitlike depressions were found only on the lower extremities, extending from the inguinal regions to the ankles. A section from the smallest nodule revealed the following histologic characteristics. The changes affected only the subcutaneous tissue, where a cellular infiltration was seen in the subcutaneous tissue.

"This cellular infiltration, toward its center, had replaced most of the fatty tissue, but toward the periphery of the affected area the fat spaces became more numerous and the infiltrations gradually ended with prolongations or isolated groups of cells which lay between the strands of the fat framework." The cell elements making up this were in the center, cellular connective tissue intermingled with plasma cells, while the periphery of the infiltration consisted of fibroblasts, large endothelioid cells, small round cells, some plasma cells, polymorphonuclear leukocytes, and conspicuous multinuclear giant cells—macro-

1. Gilchrist, T. C., and Ketron, L. W.: A Unique Case of Atrophy of the Fatty Layer of the Skin, etc., *Bull. Johns Hopkins Hosp.*, October, 1916, p. 291.

phages—the cytoplasm of which was abundant, stained faintly and appeared as fine, foamlike structures. These were observed chiefly in the fat spaces, filling them or lining them with glandlike regularity. Sections removed from the larger areas showed in the areas where the atrophy was most pronounced dense sclerotic tissue within which were found nests of fibroblasts, large and small round cells, and plasma cells. At the margin of this larger atrophic area where a transition to normal tissue occurred, were seen the cell infiltrations as described for the small area.

The clinical history of this patient did not reveal the nature of the disease. Slight irregular rises in temperature and high leukocytosis suggested some chronic inflammatory process. Toxic erythema may have had something to do with the case.

Interesting, indeed, is the discussion of the pathologic processes involved. I will quote further from their discussion:

The histologic findings show that the lesions in their development and evolution follow a definite course, which leads to the ultimate loss of the fatty layer without other permanent changes in the skin. The disease begins with the formation in the fatty layer of small nodules or strands, which are not perceptible to the naked eye, but are recognized only on deep palpation. These small nodules are made up of cells of a chronic inflammatory nature. The inflammatory process spreads only in the fatty layer, the fat itself being taken up in the cytoplasm of large phagocytic cells, which are very striking in appearance. After the fat has been removed the infiltration gives place to a fibrous tissue, the contraction of which leads to the formation of the small atrophic macules visible on the skin and which are bound down to the underlying masses. Later, as the lesions increase in size, this fibrous tissue is itself absorbed, leaving a soft, elastic skin which, owing to the loss of the fatty layer, has sunken down directly on the muscular fascia. Since the edges of some of the lesions showed no induration, the sunken areas rising directly into the normal-feeling skin, the process must be subject to spontaneous arrest. The fact that the areas affected return to a practically normal state, except that the fatty layer is entirely lost, furnishes strong presumptive evidence that the rôle of the pathological process is to remove the fatty layer. This assumption is best supported if we further assume that the fat itself, through some chemical change, has been converted into a substance still of a fatty nature, but which acts as a foreign body in the tissues. The other possibility is to assume that the condition is an infective process, and that the invading organism has a special affinity for the fatty layer, changing the fat into some substance which acts as a foreign body. The difficulty here is that, if bacterial in origin, one would not expect the process to be so narrowly confined to the fatty layer and, also, would not look for such complete restitution of the areas affected after removal of the fat.

The case under my observation differed from that reported by Gilchrist and Ketron in many respects. In the latter numerous atrophic dimples, giving to the legs a distorted contour, were present over the greater portion of the legs. The case described in this paper was unilateral; only Scarpa's triangle and an area over the anterior surface of the tibia were involved. The atrophy was equal and diffuse in these two areas and not characterized by deep, cuplike depressions. Nothing

in the clinical history of this patient indicated a chronic inflammatory condition, as was the case in the one reported by Gilchrist and Ketron.

The chief histologic differences between the two cases is that in the case here reported no cellular infiltrations or macrophages were found. In fact, the section was characterized by the almost complete absence of any nuclear elements. Only sclerotic tissue was present. No evidences of an inflammatory character were observed. While tissue was not removed for study from the margins of these atrophic areas, the history of this case shows that the atrophy occurred simultaneously throughout the areas involved and that no inflammatory process was concerned in the production of it.

DISCUSSION

The dilated superficial vein, particularly in Scarpa's triangle, indicated that there was some obstruction to the venous system of this extremity. Osler,² in his discussion of chlorosis, states: "Thrombosis in the veins may occur most commonly in the femoral, but occasionally in the cerebral sinuses. In 86 cases, the veins of the legs were affected in 48, the cerebral sinuses in 29 (Kichtenstern)."

In view of the fact that this patient gives a history of long chlorosis and with the presence of dilated tributaries of the vena saphena magna, one may reasonably conclude that a certain degree of thrombosis may have occurred of either the femoral or long saphenous vein. We may assume that associated with this passive congestion a certain degree of malnutrition existed, which had manifested itself in the atrophy. The presence of a translucent, gelatin-like tissue in certain areas of the section which normally would be occupied by fat, suggests that something in the nature of a serous atrophy may have occurred which is, according to Flemming, essentially a fat atrophy—the place of the fat being taken by serous fluid which further infiltrates into the surrounding tissue. According to Adami,³ this type of atrophy is seen in wasting diseases affecting more particularly the epicardial and perirenal fat deposits. That an early disappearance of fat occurs in malnutrition is well known.

One cannot hold, however, that the complete disappearance of subcutaneous fat in these areas can be entirely explained as resulting from circulatory disturbances—passing congestion due to thrombosis. Many atrophies are accompanied by fatty infiltrations. Again, just why the subcutaneous atrophy should be limited to these two areas described cannot be fully explained.

2. Osler, W.: *The Principles and Practice of Medicine*, New York, D. Appleton & Co., 1912, p. 73 B.

3. Adami, J. G.: *Principles of Pathology*, Philadelphia, Lea & Febiger, 1, p. 3905.

This case shows that more or less circumscribed areas of the subcutaneous tissue may undergo complete atrophy of the fatty tissue independent of infectious processes.

Note.—The patient was last seen March 10, 1917, a little more than five months after her first visit. During this time she had followed carefully the instructions given regarding, diet, habits, etc. She had taken the regulation treatment for chlorosis—iron in the form of Bland's pills. The blood findings were about normal. Her skin had a much more natural appearance. She stated that she had not felt so well for a long time. In addition to the treatment mentioned, she had massaged the atrophic areas daily with animal oils. The atrophic areas had not increased. On the other hand, there appeared to be a less degree of atrophy than when first observed, and there was a slight increase in the circumferences of the leg at the levels of the centers of the two atrophic areas.

A PAINFUL NODULAR GROWTH OF THE EAR *

O. H. FOERSTER, M.D.

MILWAUKEE

Four instances have recently come to my notice of a small nodular, painful growth occurring on the rim of the ear. While at first glance the lesion does not appear to differ essentially from the keratotic growths frequently found on the auricle, even this small group of four cases shows such uniformity of clinical features that further investigation appears desirable.

While I have not observed the lesion at its inception, it is described by the patient as primarily a localized thickening of the skin, "like a tiny flat kernel," developing without the history of preceding injury.

It is painful on pressure from the beginning, and the pain usually first attracts attention to the existence of the lesion. Later the pain may be moderate or quite acute, and prevent resting of the head on the affected side, or it may occur without the incidence of pressure and resemble the darting pain of a corn. In one instance the pain was severe enough to indicate excision of the growth.

In three cases the lesion was situated on the posterior surface of the helix, slightly below the top of the curve of the auricle, and in one case on the margin of the helix.

The growths are single, ovoid, well defined, rose-red nodules, varying from 3 to 4 mm. in their longest diameter, embedded in the skin, but only in one instance firmly attached to the underlying cartilage. The nodule is flat-topped or slightly convex, with a sloping margin, and has a shallow central depression filled in with an adherent scale. The skin surrounding the base is normal in appearance and presents no evidence of seborrheic change.

The growths appear suddenly, without the history of preceding injury to the part, reach their maximum size within a few weeks, and then remain stationary. In one instance the growth had been present without change for ten years, beginning at the age of 21 years. In the other cases observed the lesion had been present for 8, 12 and 18 months, and the patients were 56, 62 and 51 years of age, respectively. All four patients were males.

* Received for publication June 4, 1917.

* Read before the Forty-First Annual Meeting of the American Dermatological Association, Cincinnati, May 24-26, 1917.

Judging from the length of time that one of these growths existed unchanged (ten years) there appears to be no tendency to malignant change, and the histopathology of the lesion is in conformity with this.

HISTOPATHOLOGY

Microscopic examination of a nodule excised with the adjacent cartilage, shows a diffuse inflammatory and degenerative process of the corium, associated with considerable epithelial hypertrophy.

The stratum corneum is made up of ten to thirty layers of loosely laminated hyperkeratotic scales, which dip into the rete at various places, forming small horny plugs.

The stratum granulosum shows from five to seven layers of well-formed cells.

The rete shows marked acanthosis, particularly at the center of the lesion where the pegs are much lengthened and broadened, and in places confluent. There is no edema or degenerative change of the rete, and the basal layer is everywhere intact. There are isolated aggregations of rete cells in the cutis, which are evidently snared off pegs. There are no evidences of malignant change.

The entire corium shows a generalized edema with dilatation of the lymph spaces, thickening of the blood vessels, and perivascular infiltration. This consists chiefly of round cells and epithelioid cells, with a few scattered plasma cells. The collagen shows a granular degeneration and the elastic tissue is also degenerated, taking the basic stain and showing fragmentation. The cartilage itself shows no change. There are two circumscribed areas of inflammatory reaction lying over the cartilage, consisting largely of round cells, epithelioid cells, and polymorphonuclear leukocytes.

It appears that this nodular lesion differs in both clinical and histologic features from the keratotic growths, and bears only a slight clinical resemblance to epithelioma. Further and more complete histologic study of the material from several cases will be required before a definite conclusion is reached as to the nature of the growth. As far as determined, it is a localized area of chronic inflammation, in some respects resembling lichenification.

Treatment with roentgen rays resulted in the entire disappearance of one lesion, was without result in another, and was followed by recurrence in a third case, after eight weeks. The galvano-cautery, electrolysis, or carbon dioxid snow would appear to be preferable methods as they are actively destructive.

In presenting this brief report, I wish merely to bring to your notice a condition which doubtless is not of rare occurrence, but has thus far

escaped closer study. I have not been able to find in the literature a description of any condition resembling this growth, although it is not infrequent, for a number of dermatologists have informed me that instances of this disorder have occasionally been observed by them.*

*Since this paper was presented, Dr. O. S. Ormsby has kindly called my attention to an article by Dr. Max Winkler (*Arch. f. Dermat. u. Syph.*, April, 1915) entitled "Chondro-Dermatitis Nodularis Chronica Helicis." The condition there described, both clinical and histologic, corresponds closely with the cases observed by me.

RHUS DERMATITIS*

I. TOYAMA, M.D.

SENDAI, JAPAN

The plants of the rhus family, which in Japan grow wild, consist of the following six kinds: (1) *rhus tricocarpa* et *rhus tricocarpa* var. *serrata*; (2) *rhus semialata* var. *Osbeckii*; (3) *rhus toxicodendron* var. *radicans*; (4) *rhus sylvestris*; (5) *rhus vernicifera*, and (6) *rhus succedanea*.

It is well known that especially *rhus toxicodendron* and *rhus vernicifera* are the most injurious plants. A large number of cases of severe dermatitis have originated from contact with the plants. The first description of rhus dermatitis can be found in the Orient, namely, in Ping-yuan-hon-lun (605 to 609 A. D.), in China, and later in Wamyo-rui-ju-sho (923 to 930 A. D.), in Japan. This matter was transmitted to Europe at a late date from the Orient, that is, in the eighteenth century, by Kämpfer. The clinical features of dermatitis venenata provoked by the plants of the rhus family are generally well known, namely, the symptoms develop in the course of several hours to one week after contact with the poisonous plants, usually on the exposed surfaces of the body (more particularly the face, neck and hands) and on the genitals. They consist of a confluence of papules, vesicles, sometimes even bullae, accompanied by heat, redness, edematous swelling, itching or burning sensations. Itching may become intolerable and it is commonly worse at night or early in the morning. In more severe grades, pustules may rise from an intensely reddened skin, and oozing from the denuded surface may occur. As a rule, a few days later the process reaches its maximum, then, tending to gradual diminution, finally disappears within a few days under slight desquamation, without leaving cicatrices behind. The general health remains unaffected even in the severe form. As to the symptoms of lacquer poisoning, we need not go into details, as they closely resemble acute forms of eczema.¹

It has not as yet been decided what constituent is the poisonous ingredient of the plants. Some authors say it is a volatile substance, whereas others maintain that it is nonvolatile. The former believe that predisposed individuals are affected at a distance by the exhalations from the plants. For example, it is claimed that rhus dermatitis

* Received for publication Sept. 25, 1917.

1. The clinical features of the disease have been minutely described by White in his excellent monograph, "Dermatitis Venenata," 1887.

may attack people who pass under a lacquer tree or sometimes even by passing a lacquer-ware shop front. Hikosaka² reports the case of a man who was affected at a distance of several rods from a lacquer tree. New lacquered ware has provoked an acute dermatitis in a large number of patients, whereas an old lacquered article always remains harmless with reference to any eruptive disorders. Maisch isolated his "toxicodendric acid" by distillation of the poison-ivy, and believed that there was also a poisonous volatile substance. Yoshida and Korschelt³ reported that lacquer contains a volatile poison soluble in alcohol in company with the so-called "urushin acid." The poison disappears, it seems, when the urushin acid dries. On the whole, Scheube⁴ and Mense⁵ agree with him on this question.

Many others have been absolutely opposed to the above-mentioned views. Pfaff⁶ reports that it is a nonvolatile oily substance which he called "toxicodendrol," obtained by distillation from alcoholic extract of the leaves of the plants. Tschirch⁷ and Jadassohn maintained that the injurious component of the Japanese lacquer was a nonvolatile substance, the so-called "vernicoferol" Tschirch, capable of solution in petroleum-ether and alcohol. As Tschirch himself stated, the substance was by no means chemically pure. Syme⁸ described the harmful ingredient of the poison-ivy as a complex substance of a glycosidal nature, yielding gallic acid, fisetin and rhamnose. The toxic agent was non-volatile.

Investigators have since been divided in their opinion regarding the harmful component of the plants.

NATURE OF THE INJURIOUS CONSTITUENT

In the first place, as previously stated, a diversity of opinions exists as to whether or not the injurious substance is volatile. A number of people who have markedly susceptible skins for rhus were used in our experiments. As to animals, according to our preliminary experiments, the young cat and the young rabbit have the most susceptible skins of all the domestic animals. Young rabbits were tested by applying rhus poison on the interior surface of their ears. All developed dermatitis, characterized by heat, redness and edematous swelling, frequently by vesicles and bullae, sometimes even ulcers.

2. Hikosaka: Tokio-Iji-Shinshi, 1882.

3. Yoshida and Korschelt: Transaction of the Asiatic Society, 1883.

4. Scheube: Die Krankheiten der warmen Länder, 4 Auflage, 1910.

5. Mense: Handbuch der Tropenkrankheiten, Band 2, 1914.

6. Pfaff: Jour. Exper. Med., 1897, 2, p. 181.

7. Tschirch: Harze und die Harzblätter, 1906. Arch. Pharm., 1905.

8. Syme: Johns Hopkins University Dissertation, 1906.

To determine, if possible, the character of the injurious substance two experiments were undertaken.

(a) Steam was led into a lot of Japanese lacquer under various temperatures, in order to drive out all volatile substance. The substance contained in distilled water shows an acid reaction and has a characteristic smell. The substance from the skin of men and rabbits was examined in various ways, and we could demonstrate at least that the volatile substance must be harmless in any case.

The distillate from the alcoholic solution of the lacquer also was harmless. Then the distillate was extracted by ether, petroleum-ether, or chloroform. The remainder, after evaporation of the extractors, was equally harmless.

Then the distillate of the lacquer was put into a box with two young rabbits, for about four hours. The result was negative also.

We placed a large quantity of lacquered iron-plate into a drying apparatus, at 150° to 200° C. The smoke which is produced by combustion of lacquer was indifferent to the susceptible skin. There is a common observation that smoke of burning rhus plants is poisonous. Adelung⁹ confirmed the possibility of the popular belief by experimental studies. The smoke from burning rhus leaves, when blown on the skin of a susceptible person, causes dermatitis. A nonvolatile substance may, however, be carried by the particles of soot in smoke, because a recent experiment in this problem was made by McNair,¹⁰ who concluded that the smoke filtered through glass-wool was not poisonous.

(b) An involatile part of the lacquer, which remained from distillation, was extraordinarily harmful.

The lacquer subjected to six to eight hours of boiling water, kept its poisonous power to the full extent.

Recently lacquer was found on an antique jar, which was buried in the ground about a thousand years ago, taken from a ruin in Japan. There was Japanese lacquer, quite shrivelled, inside. We proved by the experiment that the petroleum-etheric solution of this lacquer was poisonous, in spite of the fact that it had lost all of the volatile component during the centuries it had been buried.

In view of these facts it is evident that rhus has no volatile poison.

ETIOLOGIC FACTORS

What is the cause of rhus dermatitis? On the one hand, we know that the petroleum-etheric solution of the lacquer is especially harmful,

9. Von Adelung, E.: An Experimental Study of Poison Oak, Arch. Int. Med., February, 1913, p. 148.

10. McNair, J. B.: Jour. Infect. Dis., 1916, 19, p. 419.

and on the other hand, we also know that the principal ingredient of the rhus is "urushiol." Accordingly, the harmful ingredient may probably be identical to the principal substance. Crude urushiol may be obtained from the sap of the lacquer tree, raw-lacquer (Japanese "ki-urushi"), by dissolving in absolute alcohol, and evaporating the alcohol from the filtrate of this solution. The petroleum-etheric solution of the crude urushiol is filtered, and then the petroleum-ether is evaporated from the filtrate. In this way the urushiol may be purified.

Some individuals are affected intensively by the urushiol, especially by the refined product, whereas others are quite immune to the poison. Susceptibility to the poisonous action of the urushiol and the plants of the rhus family is common; that is to say, a patient who suffered from rhus dermatitis must be harmed by the urushiol. The animals susceptible to the lacquer, for instance the cat and the rabbit, are also sensitive to the urushiol. And we can find no point of difference between the urushiol-dermatitis and the lacquer-poisoning with regard to the symptoms and the histologic findings. Indeed, I believe that the poisonous action of the urushiol is more powerful than that of the plants or of the lacquer. If applied to susceptible skins, 1/100 mg. of urushiol dissolved in a drop of olive oil produces, within fourteen hours, a few red papules of pinhead size, accompanied by itching. Twenty-four hours later, a large number of papules, discrete or set closely together, appear at the point where the poison had been applied. They tend to involution after thirty-eight hours, and disappear finally in the course of three days; 1/1000 mg. of urushiol, applied as aforesaid, is also still harmful, and produces a group of fleshy, erythematous papules, accompanied by itching, within twenty-seven hours. These disappeared forty-eight hours later.

According to recent studies by Majima,¹¹ it is possible that the once refined urushiol can be refined still more by distillation at low pressure (0.2 to 0.5 mm. of mercury). As the urushiol is distillable, a doubt may arise as to whether it is a volatile substance, in a greater or lesser degree. However, if the urushiol is distilled at atmospheric pressure, it is distilled dry. At a temperature above 270° C. it is solidified and decomposed for the most part. In order to distil without decomposition taking place, therefore, it is necessary that it be distilled quickly, at a pressure of at least 0.5 mm. or so of mercury. Even in this was only a part of the urushiol distils at from 210° to 220° C., whereas the greater part decomposes and recombines on being heated. Accordingly, as is the case with glycerin or olive oil, the urushiol is not at all a volatile substance.

11. Majima: The Journal of the College of Science, Imperial University of Tohoku.

The distilled urushiol causes an acute dermatitis similar to that induced by the plants of the rhus family or by the unrefined urushiol. Indeed it seems to me that the distilled urushiol is the most injurious of all similar preparations, because a man who had no susceptibility to the refined urushiol or the plants of the rhus family, was attacked evidently by the distilled urushiol, even though the eruption did not spread from the skin surface affected by the poison. Furthermore, 1/1500 mg. of the distilled urushiol, dissolved in a drop of olive oil, produced, within about twelve hours, in susceptible skins, an erythema and several dozen follicular red papules, which lasted two days, accompanied by itching. In the dose of 1/1000 mg., it produced a more marked dermatitis of three days' duration.

I wish to state here, that the principal ingredient of the ivy is the same, both in its chemical character and its poisonous action, as that of the lacquer.

Under these circumstances the following conclusions can readily be reached: (a) The cause of the rhus dermatitis is found in urushiol, a principal ingredient of the lacquer; (b) the harmful component of the rhus is nothing more or less than its principal one.

DEPENDENCE OF POISONOUS ACTION ON CHEMICAL COMPOSITION

What relation exists between toxicity and chemical construction? "Urushiol," Majima says, "is a sort of polyvalent phenol, especially showing the characters of orthodiphenol; but it is not certainly an acid as many authors considered. And it seems, phenyl radicals are combined with two hydroxyl radicals and one unsaturated alkyl radical, $C_{16}H_{27}$ in bonds. If one distils refined urushiol, previously methylated at low pressure, dimethyl urushiol will be obtained, which has the characteristics of phenol-ether. A crystallized and saturated compound, called hydrourushiol, exists when hydrogen is added to double-bond with an unsaturated alkyl radical of urushiol. In the same way a crystallized product, hydrourushiol-dimethyl-ether, can be obtained by reduction of dimethyl urushiol."

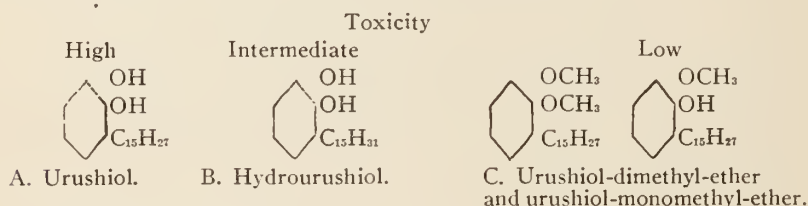
Hydrourushiol dissolved in alcohol or mixed with a certain harmless ointment was applied, as it is almost insoluble in olive oil. In susceptible skins, a dose of 1/100 mg. of hydrourushiol gave rise to no reaction, whereas 1/10 mg. produced a marked dermatitis, namely, a dozen red papules of pinhead size appeared, and an itching sensation developed within forty-eight hours on the areas with which the toxic agent came in contact. The process reached the point of greatest intensity on the following day and subsided seven days later. Of course, application of 1 mg. produced dermatitis within six hours; the inflam-

mation advanced gradually and finally showed symptoms similar to those of lacquer poisoning.

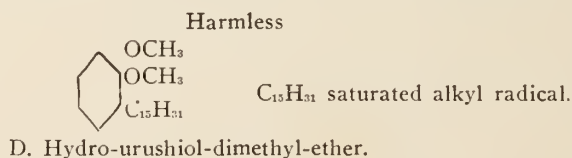
Urushiol-dimethyl-ether and urushiol-monomethyl-ether also show their poisonous action in subjects susceptible to rhus. While 1/10 mg. dissolved in a drop of olive oil was harmless, 1 mg. applied undiluted produced dermatitis. Development of an itching sensation occurred after four hours. A coffee-bean sized urticaria, surrounded by a large number of red papules, would appear within six hours. The inflammation, however, on the whole, was less than that produced by hydro-urushiol.

Hydrourushiol-dimethyl-ether showed no poisonous action, even in individuals susceptible to rhus.

In view of the result just described, we must recognize the fact which we cannot overlook, namely, that a particular relation exists between the chemical construction of urushiol and its poisonous action on the skin. With regard to the construction of urushiol, Formula A is considered correct. Its poisonous action is, therefore, entirely due to the existence of two hydroxyl radicals and adjoining unsaturated alkyl radicals. Especially the influence of the former must be greater than that of the latter, for the intensity of the poisonous action of urushiol and its derivatives is in the following order.



Hydrourushiol-dimethyl-ether (D) is harmless, because it has neither free hydroxyl radical nor unsaturated alkyl radical.

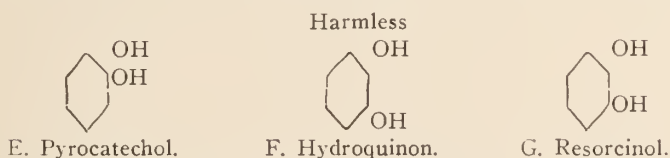


I believe such an orderly relation must be a positive proof that the cause of rhus dermatitis is urushiol.

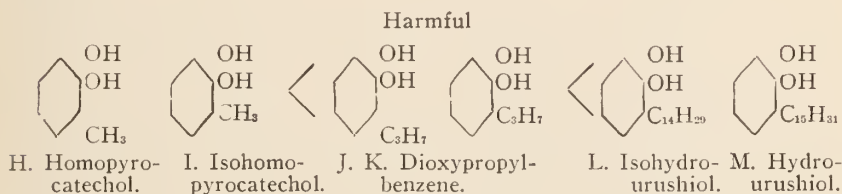
I tried, furthermore, to discover what influence the position and magnitude of the alkyl radical have on toxicity. Pyrocatechol (E), hydroquinon (F), and resorcinol (G), caused a blackish discoloration of the skins of man and animals by external application, but they were commonly harmless.

Homopyrocatechol (H) and isohomopyrocatechol (I) had almost the same action; their toxicity was low and they produced a slight dermatitis, which disappeared in a short time. Dioxypropyl-benzene J and K produced sometimes severe, sometimes slight, inflammation of the skin; their toxicity was lower than that of urushiol or hydro-urushiol, but higher than that of homopyrocatechol and isohomopyrocatechol. The poisonous action of isohydrourushiol (L) and hydro-urushiol (M) was of the same quality and same extent. In a word, the compounds with greater alkyl radical are more harmful, but the position of the alkyl radical is almost wholly unrelated to the toxicity.

As a matter of course, urushiol, which has a great and, moreover, unsaturated alkyl radical in side-bond, must be most injurious.



The following preparations caused more or less dermatitis by external use.



PATHOLOGY OF RHUS DERMATITIS

How shall we explain the so-called infection at a distance, if we assume urushiol as the cause of rhus dermatitis?

In the cases in which dermatitis is induced by passage under a lacquer tree, it is to be explained as follows: A small quantity of sap, dropping from an injured part of the plant, can reach a person through the agency of the wind. Or, it is possible that insects carry poison from plant to person, as Hubbard¹² considered probable. As even 1/1500 mg. of urushiol can produce inflammation in a susceptible skin, minute particles of lacquer are quite enough to induce lacquer poisoning, if they are conveyed directly or, by mediation of the insect, indirectly to a susceptible subject. Schwalbe¹³ considered that the poison contained in the pollen or trichoms that have fallen from the tree and are scattered by the wind, may be conveyed to susceptible individuals.

12. Hubbard: Med. Brief, 1904, 32.

13. Schwalbe: Med. Record, New York, 1903; München, med. Wchnschr., 1902.

But this theory is doubtful, because Inui,¹⁴ Warren,¹⁵ Rost and Gilg,¹⁶ and McNair¹⁰ have found that the plant's hair as well as the pollen are nontoxic. The cases in which the disease has appeared after passing a lacquer-ware shop front are due to the mechanical transportation of the poison, as happens during work when dust with the resinous sap is carried by air current. New lacquered ware is harmful, because it can isolate the poison if dryness of the lacquer is still insufficient. The isolation is more easy when the lacquer ware is heated. The reason that contact with old lacquered ware is harmless depends on the decomposition and recombining of urushiol as the years pass. Persons may be poisoned by indirect contact with lacquer on clothing or tools. The poisonous ingredient is made so adherent by resin that it is very hard to wash it from the skin surface affected by the poison, and it spreads much more readily to the places previously unaffected.

HISTOPATHOLOGY

The histologic changes of the earliest process were studied. In the corium the vessels of the papillary layer show dilatation and perivascular cell infiltration, consisting chiefly of round cells. Especially marked are the changes associated with the sweat ducts in the papillary layer. There is an edematous infiltration which is quite extensive, forming papules and elevated areas. At times it occurs only about the hair follicles, producing perifollicular papules. There is a parenchymatous edema of the epithelial cells, and this is most extensive in the neighborhood of the sweat-pores and hair-follicles. Here swelling, vacuolization, granulation and even necrosis of the epithelial cells is seen.

According to the histologic findings, the pathogenesis of the affection may be thus interpreted: Minute particles of urushiol reach the skin surface and they oxidize easily by the agency of "laccase, Bertrand," which is contained in lacquer itself, or by other oxidases in the skin. It seems that in the process of oxidation there ensues a poisonous action. The pathologic changes commonly begin about the sweat-pores or hair-follicles, because these orifices offer ready ingress to the poison. Retention of lacquer or urushiol, even in minute particles, and its subsequent oxidation, causes changes both in the epidermis and in the corium, which may be limited to the common excretory duct and the hair-follicles, but which involve usually the tissues surrounding these structures.

14. Inui: *Botan. Centralbl.*, 1900, 3.

15. Warren: *Am. Jour. Pharm.*, 1913, 85.

16. Gilg: *Ber. d. deutsch. pharm. Gesellsch.*, Berl., 1912, 22, p. 296.

TREATMENT

One of the most common errors in therapy lies in the frequency with which a succession of many medicaments is tried, instead of studying more carefully the cause of the affection. There is harm in the application of various kinds of plasters, pastes, ointments, and similar preparations without possessing the least advantage, because the substance having the injurious effect, even in minute particles, is spread out in this way on neighboring sound skin surfaces, without being neutralized beforehand. We believe that the purpose of treatment and prophylaxis should be directed only towards the neutralization or destruction of the urushiol, the injurious ingredient of lacquer. For this purpose an alkali, nitric acid, and sugar of lead should be applied. If a history of contact with the plants of the *rhum* family be obtained, I recommend at first the application of an alkali, as many authors have done. A solution of sodium carbonate or potassium carbonate in water and aqueous ammonia have been employed to advantage; alkaline baths also do well. One of the most effective and trustworthy remedies was the following solution:

	gm. or c.c.
Caustic potash (potassium hydrate).....	1.0
Alcohol	30.0
Glycerin	10.0
Water	60.0

The suspected skin surfaces should be rubbed off, with cotton moistened in this solution. These methods are not only necessary to neutralize the urushiol, but they have another advantage, namely, they reveal the skin surfaces affected by the poison. The lacquer adhering to the skin appears, by the action of the alkali, as spots or lines of blackish color, if its quantity is not too little. The spots and lines can be removed by the application of an alcoholic solution of 1 per cent. of nitric acid. The skin may now be washed with water and soap. I found useful the solution of plumbum aceticum in alcohol or water (1 or 2 per cent.) employed as a cold wet compress after the onset of the inflammatory process.

REFERENCES

This report is an abstract from our Japanese works. For full details consult:

1. Toyama and Kayaba: *Tokio-igakkai-zasshi* (Mitteil. d. med. Gesellschaft zu Tokio) and *Hifuka-Hitsunyokika zasshi* (Japan. Ztschr. f. Dermat. u. Urol.), 1915.
2. Majima and Toyama: *Tokio-kagakkai-zasshi* (Mitteil. d. chem. Gesellsch. zu Tokio), 1915.
3. Toyama and Kayaba: *Hifuka-Hiksunyokika-zasshi* (Jap. Ztschr. f. Dermat. u. Urol.), 1916.

SCHAMBERG'S PROGRESSIVE PIGMENTARY DERMATOSIS

REPORT OF A CASE WITH HISTOLOGIC STUDY

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In a rather careful search of the literature one is impressed by the infrequency with which Schamberg's disease has been observed. American literature contains a record of the first case only, that reported by Schamberg in 1901. At various times since that year, cases have been observed in England, and the results of these studies are to be found in the English journals. The condition has apparently received little or no attention from French and German physicians, as a review of their literature reveals nothing related to this dermatosis. These facts, together with the very evident lack of detailed data make it seem probable that the report of another case in this country with perhaps additional findings may be of some interest.

CASE REPORT

History.—The case which forms the material for this study occurred in a native of this state, Mr. J. W. S., who entered the dermatological service of the University Hospital in May, 1917. The man was 66 years of age and apparently in good health. He was a farmer by occupation. The family history was entirely negative. The patient gave a history of repeated attacks of "rag weed poisoning" which have recurred yearly for the past twenty years. He had malaria when a young man and was operated on for gallstones three years ago.

The present condition started in 1912, at which time he noticed a "brown spot" on the outer aspect of the left leg. This gradually grew larger by peripheral extension for one and a half years, when it slowly began to fade. At that time the patient was operated on for gallstones, and following the operation the condition again became active, and has been gradually enlarging up to the time of examination. About one year ago similar changes made their appearance on the opposite extremity and as with the former, have gradually enlarged by peripheral extension. Throughout the course of the disease there have been no marked subjective symptoms.

Examination.—This reveals a rather tall, well-built, fairly nourished, elderly man. The face and hands are tanned from exposure. There is a slight irregularity of the right pupil, but both react to light and in accommodation. The integument of the upper extremities and trunk presents nothing noteworthy. Involving the middle third and upper half of the lower third of the antero-internal aspect of the left leg, there is an irregularly rectangular patch of pigmentation measuring roughly 7 to 9 inches in length and 3 to 5 inches in breadth (Fig. 1). The involvement in the lower half of the patch is complete and gives one the impression of a reddish brown, or rusty, discoloration.

* Received for publication, Nov. 16, 1917.

The upper half is similar, but is interrupted in places by irregular plaques of nonpigmented skin. The borders are rather well defined and are characterized by outstanding pinpoint, to pinhead sized macules of a slightly lighter tint so well described by Schamberg as "punctate, cayenne-pepper like lesions." There is a similar solid patch of pigment just below the left internal malleolus. The right limb is involved to a lesser extent, the process being confined to the anterior aspect and consisting of closely set, brownish-yellow cayenne-



Fig. 1.—Schamberg's progressive pigmentary dermatosis in a man, aged 66. Note the intense pigmentation of the lower third of the left leg, above which are seen the typical punctate, cayenne-pepper like macules. The macules are less distinctive on the right leg.

pepper like macules. These have in places become confluent giving rise to solid patches of a darker hue. The picture in each case suggests a primary collection of small macules which as they become more numerous, coalesce to form larger patches. The latter apparently enlarge peripherally by confluence

of the smaller lesions along the advancing border. There is some scaling over certain of the patches and the integument generally exhibits a certain degree of senile atrophic change. The process shows an entire absence of any papular element and there is no evidence of any subjective symptoms. There are no varicosities, nor are there any signs of circulatory stasis. The Wassermann reaction is negative.

MICROSCOPIC STUDY

For further study, two specimens were obtained at biopsy. One included a single pinhead sized macule from the advancing border, the other being taken from the central part of the older, more deeply pigmented portion. The tissue was hardened in successive strengths of alcohol, embedded in paraffin and the sections stained after the several methods described in the following pages.

Sections taken from the older portion of the lesion and stained in hematoxylin and eosin were first studied and presented the following changes (Fig. 2):

In the stratum corneum there was a certain degree of parakeratosis, but nowhere was this a marked feature. The stratum granulosum and stratum lucidum appeared practically normal. The rete Malpighii presented an atrophic appearance and not only was there an absence of the rete pegs, but also a decided decrease in the tiers of cells making up this layer. There were to be found occasional migratory polynuclear leukocytes in the malpighian layer and these, as is usual in this location, appeared compressed and elongated. The most striking changes were to be found in the pars papillaris and subpapillary layers of the corium. Aside from an absence of the papillae, a not unusual condition accompanying atrophic changes in the prickle cell layer, there was a pronounced infiltration of the subpapillary portion. The infiltration was generalized throughout the section, but in the upper layers of the corium tended to be circumscribed in places. These circumscribed infiltrates occurred irregularly distributed and in many places surrounded sweat ducts. By the use of Unna's polychrome methylene blue and the Pappenheim stains, the infiltration was later found to be made up of mononuclear lymphocytes, numerous polynuclears, and occasional mast, plasma and epithelioid cells. Throughout the section, but more especially in the subpapillary layer and in the neighborhood of the sweat coils, were irregularly distributed small groups of greenish to golden-yellow granules. These occurred both intracellularly and extracellularly. Stained in orcein, the sections revealed a proliferative endarteritis of moderate degree and numerous newly formed capillaries, the latter occurring especially in the circumscribed infiltrates. The elastica and collagen elements of the sections were practically normal.

The picture just described is that as observed in the older portion of the lesion.* Sections taken from the border differed in two respects: (1) in degree, as the infiltrations were not so numerous or extensive, the endarteritis not so pronounced and the capillary proliferation not so marked, and (2) no pigment granules were visible.



Fig. 2.—Photomicrograph of a section of a macule showing the entire absence of papillae and the dense granular infiltration of the subpapillary layer.

COMMENT

So far as can be judged from previous reports, the clinical aspects of this dermatosis have received most attention. So much so, in fact, that in the two or three cases studied histologically, mention has been

*For corroboration of the histologic findings, and for the preparation of the photomicrographs, I am indebted to the kindness of Prof. A. S. Warthin of the Department of Pathology.

made of the pigment granules in one instance only, and then as a passing consideration in the general histologic description. It seemed from a study of this case that the pigmentary changes in the cutis were of more than passing interest, and with the idea of more definitely

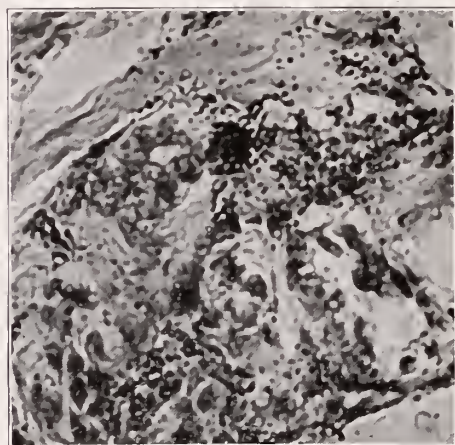


Fig. 3.—Showing the beginning disintegration of the hemoglobin, the marked infiltration and the tendency toward pigmentary granule formation. Specimen taken from the advancing border.

determining their nature, sections were placed in a saturated aqueous solution of potassium ferrocyanid for several hours, differentiated in acid alcohol and counterstained in alum and lithium carmin (Figs. 3

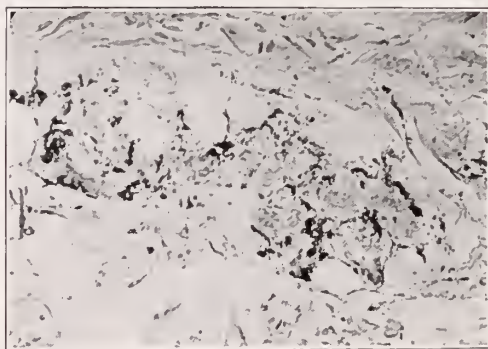


Fig. 4.—Illustrating the dense, intracellular pigmentary deposition characteristic of a chronic, low grade, inflammatory process. Specimen taken from the older, more deeply pigmented area.

and 4). The disseminated granules which were observed gave a most positive Berlin blue reaction, while in the earlier sections in which no pigment was visible with the ordinary stains, the result was equally convincing and differed only in that the granules occurred less fre-

quently and were almost entirely intracellular. In brief, then, one has the picture of a chronic, low grade, inflammatory process, plus pigmentary deposits. The early inflammatory changes and beginning disintegration of hemoglobin observed in the sections from the more recent lesions differs only in degree from the picture of chronic inflammation and pigmentary deposition present in the older process. The pigment being responsible for the clinical picture, it follows that one's interest is directed to the possible explanation of its presence.

Schamberg,¹ who reported the first case in 1901, went only so far as to suggest its analogy, rather than any definite relation to the angioma serpiginosum of Hutchinson. In Freeman's case,² reported in 1902, chronic eczema was suggested as a possible explanation. Fox³ and Little,⁴ reporting the next two consecutive cases in 1905 and 1914, took up no etiologic factors in their discussion. Whitfield,⁵ who also reported a case in 1914, was of the opinion that the process in his case, and in the case of angioma serpiginosum were "varieties of the same thing." In Adamson's⁶ case, reported in 1916, an angiosclerotic condition was suggested as a possible explanation.

In the present case, the entire absence of any papular element, the habit of spontaneous disappearance, and the histologic findings, all rather disfavor the view of angioma serpiginosum being an allied condition. With the chemical nature of the pigment definitely established as an iron derivative, the blood stream as a source naturally suggests itself. The explanation of the comparative absence of pigment in the early sections is obvious when one considers the retrogressive changes through which hemoglobin must pass before hemosiderin is obtained. With the blood stream as the hypothetic source of the pigment, one might conceive of such a condition resulting from a slow but continuous diapedesis through walls of vessels sclerosed to the extent of slowing up the circulation. Yet, the fact that the condition occurs in the young as well as in those of advanced years, would rather discredit this view. The circumscribed capillary proliferation suggests a local angiectatic process through which the circulation is impeded, this in turn giving rise to a diapedesis of red cells, followed by their disintegration in the surrounding tissue, and resulting in a pigmentation limited by the extent to which the capillary proliferation progresses. What etiologic factor activates this localized capillary change is not clear from the clinical or pathologic study of the case at hand.

1. Schamberg: Brit. Jour. Dermat., 1901, 13, p. 1.

2. Freeman: Brit. Jour. Dermat., 1902, 14, p. 425.

3. Fox, Colcott: Brit. Jour. Dermat., 1905, 17, p. 416.

4. Little, Graham: Brit. Jour. Dermat., 1914, 26, p. 334.

5. Whitfield: Brit. Jour. Dermat., 1914, 26, p. 357.

6. Adamson: Brit. Jour. Dermat., 1916, 28, p. 334.

Suffice at present to say then, that we have in Schamberg's progressive pigmentary dermatosis a comparatively rare hemosideric disease — one which occurs in any decade of life, thus far observed only in males and affecting the extremities alone, and appearing both on the continent and in the people of the states; a condition that is apparently secondary to a localized disturbance of circulation, and giving rise to a definite clinical entity.

INFECTION IN CUTANEOUS DISORDERS

A PRELIMINARY REPORT *

HUGH MACKAY, M.D.

WINNIPEG, MAN.

In the domain of dermatology, in the search for the causes of disease, one does not travel far before reaching the realm of the unexplored, the unmapped and uncharted regions where line or plummet has not taken the soundings.

The cases which I am to present before this society tonight, it seems to me, suggest that our views in regard to the etiology of diseased processes in the integumentary structures are about to undergo radical changes; that the time is due and overdue when these views must be brought into alignment with recent advances in medicine, that many of the problems hitherto considered settled in their etiologic aspects must be reopened for further consideration, and a place—sometimes a prominent and exclusive place—accorded to infection as a causative agency in the production of the morbid phenomena observable in diseased conditions of the skin.

Tradition dies hard in medicine. We are wedded to the past, its teachings and its usages. In presenting conceptions more or less variant with those usually recognized in the medical literature of the day, the question to decide is not are they opposed to theories promulgated by this authority or that, but are they in harmony with the clinical findings—that is the acid test, the final court of adjudication.

Since my appointment to the dermatological staff of the Winnipeg General Hospital, I have studied the available clinical material there from this viewpoint, that is, infection, special attention being paid to the teeth and to the tonsils as possible avenues where micro-organisms might gain entrance and carry on their harmful work. In the case of the teeth, I wish to acknowledge my indebtedness to Dr. Lyon Berco-vitch of the dental clinic, without whose coöperation and sympathetic attitude these investigations would have been impossible. The incidence of mouth infection in skin affections was found to be unusually large. In some instances the roentgen ray located alveolar abscesses and rarefied areas where such conditions could not be demonstrated clinically, and were quite unsuspected by the patients themselves. Roots left under plates and bridge work were occasionally found.

In many of the acute cases the relationship seemed easy to establish, and the removal of the focus was followed by prompt improvement in

* Received for publication July 1, 1917.

* Read before the Winnipeg Medical Society, May 17, 1917.

the symptoms. I am not basing my findings, however, on these, because it may be pointed out with force and logic that the ordinary course in skin diseases is to spontaneous cure. At nature's rallying call, the protective agencies of the body are able to hold in abeyance, temporarily at any rate, the influences, microbic or otherwise, that make for disease. But these occult forces, marvelous and potent though they be, are oftentimes unequal to the task imposed on them. Recurrences of the malady take place, and the resisting power of the skin is permanently impaired. Nature having pressed into the service her last recruit, victory rests with the invaders and a condition of chronicity dominates the clinical picture.

With these patients the matter of results in treatment so far as coincidence is concerned, approaches the vanishing point. All the patients presented tonight are cases of years standing. With one exception, the older methods of treatment have been tried and have broken down. Whether the new method of attack is any better—whether its application promises anything for the relief of these sufferers who have all too long been the opprobrium and the discredit of medicine, is for you gentlemen to decide; you are the judge and the jury.

REPORT OF CASES

CASE 1.—Mrs. K., aged 34, came under my care five years ago for urticaria. She has gradually grown worse, the case drifting into the angioneurotic edema class. The swellings were large, recurring frequently on different parts of the body. Some lesions were always in evidence, causing much mental and physical suffering. The teeth were overhauled without the patient deriving any relief. During the time she has been under observation several attacks of tonsillitis supervened. Resolution apparently took place, the tonsils not manifesting any deviation from health. It occurred to me that the removal of the tonsils might be of service. The patient was told frankly that it was more or less of an experiment, but she submitted to having the operation performed by Dr. George Fletcher. Later an examination of these structures was made by Dr. Pierce, who reported "increased connective tissue, many active germ centers." An autogenous streptococcic vaccine was prepared and administered in small doses, guardedly, at weekly intervals. Improvement was rapid, and she is now entirely free from symptoms. Certain foodstuffs which experience had taught her exercised a sinister influence in precipitating seizures, have been rigidly excluded from the diet for years. Now she is under no dietetic restrictions whatsoever. I believe this a case of focal infection from the tonsil.

CASE 2.—J. P., aged 18, came under my care Feb. 27, 1917. The condition was one of chronic urticaria. The trouble developed seven years ago. This lad's teeth were badly decayed. These were removed under an anesthetic by Dr. Wood of this city. No vaccines were employed, and no constitutional treatment or dietetic restrictions instituted. There has been much relief from the subjective symptoms, but the irritable condition of the vasomotor system is still in evidence. Wheals can easily be elicited by external irritation. Dermographism is well marked.

The removal of the focus has not been sufficient in itself to completely overcome the malady. My belief is that his immunity might have been built up by an autogenous vaccine. Possibly there is another focus of absorption which I have not been able to locate.

CASE 3.—S. G., aged 12, came under my observation Dec. 30, 1914. This was a case of psoriasis disseminatus in which the scalp was especially bad. Temporary improvement took place following the institution of recognized therapeutic measures. Relapse invariably followed a discontinuance of the treatment. Examination of the teeth by the roentgen ray revealed multiple alveolar abscesses. These foci were cleared up and an autogenous vaccine administered. A symptomatic cure has been effected under this treatment. This method was first applied in my practice a year ago in a case of chronic psoriasis of very advanced grade, and with a like result. To date there has been no recurrence of the disorder.

CASE 4.—The patient, M. W., aged 12, had a generalized seborrheic dermatitis of five years' duration; autogenous vaccine was used with marked relief of the symptoms. This patient, like the other, had multiple alveolar abscesses.

My thanks are due Dr. Pierce and Dr. Boyd for laboratory assistance and advice in these studies.

CONCLUSIONS

1. In a preponderating number of cases of inflammatory affections of the skin, diligent search will reveal a focus of infection that may reasonably be assumed to stand in etiologic relationship to the disease.

2. That the vaccines, while far from being cure-alls, are of distinct service in combating these maladies in selected cases.

3. That the removal of the focus, together with the exhibition of an autogenous vaccine, has almost invariably given a measure of relief to these sufferers, and in many cases have brought about a symptomatic cure.

4. That relapses will usually supervene unless the focus is eradicated.

Society Transactions

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, May 28, 1917

JAMES C. JOHNSTON, M.D., *President*

CASE FOR DIAGNOSIS. Presented by DR. LANE.

The patient, J. H., aged 43, was a Jewish tailor, born in Russia. He had had erysipelas when 13 years of age, and a sore on the penis at 21, the latter lesion being diagnosed as not a chancre. He was married in 1902. His wife had had no miscarriages; she had had four children, aged 14, 22, 10 and 8 years, respectively; all the children were healthy. The trouble for which he was presented began six years ago with scaling of the hands, which gradually spread until four years ago the whole body was slightly scaly. The condition had been treated as eczema one year ago, with no change; then treated by another physician for six months, with slight improvement. He had had no treatment from early in 1914, until July, 1915, when the disease was diagnosed as syphilis; about that time he received one intravenous injection (probably salvarsan) and two intragluteal injections of mercury. These were followed by a great increase of redness and desquamation.

May 14, 1917, the entire body was red and desquamating; the palms and soles were thickened; there was alopecia of the scalp and outer half of the eyebrows; the nails were not affected; polyadenitis was present. Several cutaneo-subcutaneous nodules showed a tendency to break down. The Wassermann test was negative and the urine normal. Examination of the blood revealed, white blood cells, 6,500, and red blood cells, 4,500,000. A blood count made two days later revealed the following: erythrocytes, 4,500,000; leukocytes, 6,500; differential (500 cells counted); polymorphonuclears, 370; small lymphocytes, 61; large lymphocytes, 32; eosinophils, 32; myelocytes, 4; basophils, 1.

DISCUSSION

DR. WINFIELD said he had no idea what the condition was. He had seen a number of such cases, and had never been able to decide between pityriasis rubra pilaris and true lichen ruber acuminatus.

DR. HEIMANN said that he, too, had thought of the two conditions mentioned by Dr. Winfield, and also of the leukemic group, including mycosis fungoides. He was inclined to think the diagnosis lay between mycosis fungoides and pityriasis rubra pilaris.

DR. TRIMBLE said that at first glance the case more nearly resembled mycosis fungoides than anything else, although it was not typical. He did not think it was pityriasis rubra pilaris, for the lesion was very dark colored and generalized and there was no great amount of scaling. He was inclined to the belief that it belonged to the group of eruptions that were at times associated with leukemia or pseudoleukemia.

DR. WHITEHOUSE said that judging from the only two cases he had seen, the condition was not the pityriasis rubra of Hebra. Both these cases were much more serious conditions than this, and both patients died. There was no thickening or infiltration of the skin; there was marked exfoliation, leaving a moist, red, shiny surface, and going on to very serious internal troubles of various kinds; the pityriasis rubra of Hebra was a universal exfoliative derma-

titis. From the fact that there were beginning circumscribed areas of infiltration to be seen, it would seem that this was a case of mycosis fungoides.

DR. WILLIAMS said that the case very strongly suggested mycosis fungoides, but he did not care to make a positive diagnosis.

DR. LANE said that he was very glad to have these various opinions, that this case did not seem to be a pityriasis rubra pilaris, for he had never seen the skin break down in that condition as it did in this instance. He had tentatively made a diagnosis between pityriasis rubra of Hebra and mycosis fungoides, but was willing to drop the former after the opinions just expressed. He further said that he would endeavor to make a complete study of the case before the following Tuesday and show the patient again at the clinic of the American Medical Association that afternoon, with everything excepting the biopsy.

CASE FOR DIAGNOSIS. Presented by DR. WHITEHOUSE.

The patient was a barber, aged 28. The eruption began ten months ago in one axilla and gradually spread over the trunk, legs and arms, including the palms. The lesions consisted of small vesicles, later becoming pustules, none much larger than a pinhead and surrounded by a narrow erythematous ring. They appeared in crops like herpetic outbreaks, but were not accompanied by itching nor subjective symptoms, excepting perhaps a slight burning or soreness. On clearing up, they left well-marked pigmentation and, in places, a few tiny scars. Both palms were thickly set with lesions, some active and others dried into small scabs. The patient stated that pressure by a tight trouser-band would often produce an outbreak. He seemed to be a well-nourished man. He had a general adenopathy, including the epitrochlear glands on both sides. He had had measles at the age of 19. His father had died at 41 of a lingering illness of six years' duration, beginning as stomach trouble and ending in tuberculosis. The patient was born six days after the father died. Three brothers and sisters were living and well. The patient had a healthy child 3 months old.

DISCUSSION

DR. WINFIELD thought that in spite of the absence of itching the case belonged to the dermatitis herpetiformis group.

DR. HEIMANN agreed with Dr. Winfield.

DR. TRIMBLE said that he had seen the patient before, and had presented him before the Society some six or eight months previously. He did not know what the condition was then, nor did he know now. At that time, however, there were small vesicles all of the same size. These lesions occupied the location where the pigmented lesions were now to be seen. There were then no lesions on the palms and there was no itching. The condition then had existed for two months and the case was presented for diagnosis. After the condition had been treated for a short time, all the vesicles ruptured and formed superficial yellowish crusts, with newly formed vesicles scattered through them. At the time he had suggested a diagnosis of mild generalized impetigo.

DR. JOHNSTON said he had never seen an impetigo that left a pigmentation. The case seemed to him to point rather definitely to an internal origin rather than an external one. There might be a superadded pompholyx.

DR. WHITEHOUSE said that it was probably an impetigo. He had never seen a dermatitis herpetiformis that did not itch. He wondered if the tuberculous history had anything to do with the susceptibility of the skin to a streptococcus or staphylococcus infection. The man was receiving tuberculin.

GRANULOSIS RUBRA NASI. Presented by DR. WINFIELD.

The patient was a young man, aged 19. The condition began when he was 11 years old. The cartilaginous parts of the nose were slightly red, the color

deepening as time went on. At times, there were dark red papules scattered over the diseased areas. There were a few telangiectases present. The nose was cold to the touch and was constantly covered with a sticky fluid. At times, the condition improved, but treatment of various kinds had no lasting effect, except, perhaps, that with the roentgen ray.

DISCUSSION

DR. WINFIELD expressed his gratification that all agreed with the diagnosis, and said that he would like very much to know what to do in the way of treatment. The condition was extending, and the only benefit that had been obtained was from roentgen-ray treatment. He had wondered whether radium would do it any good.

DR. JOHNSTON said that the condition was due to an internal cause and might be overcome by diet.

DR. WINFIELD replied that all sorts of diet had been ordered without any benefit. Roentgen-ray treatment or the high frequency current would clear up the patch for two or three weeks, and then some indiscretion of eating, etc., would bring it back.

CASE FOR DIAGNOSIS (CHLOASMA ?). Presented by DR. POTTER.

The patient was a single woman, aged 50, born in the Dutch West Indies, who had been in the United States for the past nine years. She was perfectly well until three years ago, when a hysterectomy was performed. Since the operation, the patient had suffered from the nervous symptoms, sometimes accompanying the menopause. Examination showed physical signs of tuberculosis in the right apex. The blood, urine and stool examinations were negative. The gastric analysis revealed nothing abnormal. The Wassermann reaction was negative. Three years ago, the patient noticed areas of erythema and pigmentation on the face. The condition steadily progressed until the entire face was deeply pigmented and there was an accentuation of the lines of the skin of the forehead, which suggested a possible early case of lepra. The examination of the nasal cavity revealed no evidence of ulceration.

DISCUSSION

DR. LANE thought the lesion on the face was chloasma and that the others were due to exposure to the elements, a condition which Brocq described as the dermatosis of the sternoclavicular triangle in women who wore décolleté garments continually.

DR. WILLIAMS thought it was chloasma. He recalled a patient whom he had attended, a blonde, in whom exposure to the sun had caused an actual atrophy of the skin over the manubrium and just above.

DR. MACKEE thought that a diagnosis of argyria should be considered.

DR. POTTER said that he had seen the patient three years ago and had thought the condition to be chloasma, and gave little thought to it; but six months ago she had returned and was so much worse that he thought it might have had some other origin. The face seemed to be very much congested and the lines of the skin of the forehead were accentuated, and it might be a very early case of leprosy, inasmuch as the woman was from the West Indies; it was also possible that the tuberculous condition might have some relation to it. He had not thought of argyria, but so far as he knew the patient had never had any treatment that would produce that condition.

PITYRIASIS ROSEA. Presented by DR. TRIMBLE.

The patient was a girl, aged 12 years. The duration of the condition was eight days, and the location was mainly the trunk, which was thickly covered with a papular eruption that was very rough to the touch, almost as rough as a

nutmeg grater. Scattered throughout, were typical buff-colored lesions of pityriasis rosea. The papular condition seemed as if it might be a secondary dermatitis. The patient, however, stated positively that no treatment had been used before applying at the clinic.

DISCUSSION

DR. HEIMANN agreed with the diagnosis.

DR. WINFIELD said that he had seen cases similar to Dr. Trimble's description of the condition, but that in addition to the dermatitis on the flanks one could see the remains of the original lesion. This winter he had seen a number of patients who had a sore throat and fever, and then an eruption of this peculiar form of lesion followed, which made him begin to think that there were two diseases called by the one name—one of them being the classic disease, and the other probably some form of exanthem.

DR. CHIPMAN (by invitation) said that it was very difficult to diagnose pityriasis rosea in its later stages, and this case was in the late stage; but there were two or three patches which seemed to be pityriasis rosea, and, without knowing what treatment had been received, it seemed probable that it was a pityriasis rosea rather than a secondary dermatitis.

DR. POTTER said there were two or three spots on the abdomen that were no doubt fading patches of pityriasis rosea. The rest of the eruption was a secondary dermatitis.

DR. WINFIELD agreed with Dr. Potter.

DR. TRIMBLE said that undoubtedly a secondary dermatitis was present. The patient had been presented to show the distinct nutmeg appearance, with the pityriasis patches scattered through it.

SYPHILITIC OBLITERATING ENDARTERITIS. Presented by DR. TRIMBLE.

The patient, a man, aged 34, stated that he had had a venereal sore in 1911 or 1912, for which he received internal treatment for one or two years. The lesion was followed by a generalized eruption. The condition for the relief of which he had applied, began fourteen months ago with severe pain in the calf of the left leg. A month later, a redness appeared over the toes, extending to the foot and gradually increasing up to three months ago, when the end of the middle toe became gangrenous. The patient had suffered much pain, which had increased recently. As presented, a deep red, congested and swollen area involved most of the left foot, with gangrene of the first phalanx of the middle toe. The right foot seemed unaffected.

DISCUSSION

DR. KLOTZ said that the cases of syphilitic endarteritis which he had seen did not show the marked redness which characterized this case. Before Buerger described his cases, he had seen in syphilitic conditions of blood vessels about which he had been in doubt—the skin was pale and of a livid bluish color and the hands felt quite cold. They were extremely painful. He was therefore more inclined to consider the case to be one of thrombo-angeitis. However, he recalled a similar case in the German Hospital in which he had thought of endarteritis.

DR. WINFIELD said that during the past year he had seen three cases of Buerger's disease—thrombo-angeitis obliterans. One man gave a negative syphilitic history, and the Wassermann test was negative; the other two patients had strongly positive Wassermann reactions and gave a history of syphilis. In the two syphilitic cases, the lesions were red and the feet were very much swollen, highly inflammatory and very painful. Buerger said that the disease never occurred on the fingers—a distinction between that and Raynaud's disease.

DR. LANE said that some years ago he saw a case occurring in a syphilitic patient in whom the Wassermann test was negative. In this particular case there was none of the redness that Dr. Winfield observed in both his cases. The interesting point in the case was that some time before the gangrene came on, the patient had a typical erythema nodosum on the legs. Some time ago Mauriac wrote an article giving syphilis as the etiology of erythema nodosum in some cases. This patient had to have his leg amputated.

DR. POTTER said that the case presented was no doubt one of syphilitic endarteritis obliterans. In Buerger's disease, as the speaker understood that condition, the pain was constant and intense. The disease was almost entirely confined to male Hebrews, and the affected part was generally livid and cold, as Dr. Klotz remarked, whereas in this case the foot was red and hot.

DR. KLOTZ said that in the unilateral cases one ought not to speak of Raynaud's disease. He had studied the early literature very carefully, and that showed a symmetrical occurrence of symptoms to be an essential feature. Anything that was not symmetrical could not strictly be called Raynaud's disease.

DR. CHIPMAN (by invitation) said it would seem that many of these lesions were due to syphilis and others were not caused by that infection. Inasmuch as some of the patients had tuberculosis we might be justified in thinking that some of the lesions were caused by other affections than syphilis. As far as the erythema was concerned, it might be an individual reaction due to varying circumstances, and not a part of the disease itself.

DR. WISE said that in a recent article in *The Journal of the American Medical Association* it was reported that thrombo-angitis obliterans occurred in Jews and Gentiles alike in Russia, but as Russian Jews were in the majority in New York, that gave the impression of the predominance of the disease in that race in this city. As to treatment, exposing the legs to extreme dry heat would cure some of the cases.

DR. TRIMBLE said he was familiar with Dr. Klotz' description of syphilitic endarteritis, and like him was under the impression that the hands were nearly always cold. Even so, he was in accord with Dr. Chipman that this extreme redness might be individual in this particular case. He felt fairly certain that this was a case of syphilitic endarteritis. He was not so familiar with Buerger's disease as with Dr. Klotz' description of endarteritis, but was under the impression that the former was one in which the veins were involved. If it was a venous stasis, it ought to be livid and blue instead of red. That was one of the reasons for ruling that out. He still felt it was a peripheral syphilitic endarteritis.

DR. MACKEE said that he understood that erythema nodosum was a clinical entity, that the lesions were caused by the streptococcus, that they developed suddenly, were painful and transient. Erythema induratum was a term applied to Bazin's disease. Erythema induratum syphiliticum or Mauriac's disease was a chronic nodose eruption which markedly simulated Bazin's disease but was caused by syphilis and not by tuberculosis.

TUBERCULOUS ULCER ON THE TONGUE. Presented by DR. MACKEE.

The patient was a man, aged 31. He had pulmonary tuberculosis, and tubercle bacilli were demonstrated in the sputum. The Wassermann reaction was negative. The duration of the tongue lesion was three months. A piece of tissue was removed from the ulcer, and not only was there a tuberculous structure but tubercle bacilli were found in the tissue. The lesion was situated on the dorsal surface of the base or root of the tongue, a very unusual location. The ulcer was deep, the size of a silver quarter, punched out, and the margin was soft. The clinical appearance was that of syphilis.

DISCUSSION

DR. WINFIELD said that probably all would have made a diagnosis of syphilis were it not for our present aids, and even so it was possible that the man had a tuberculid and syphilis also. He agreed with the diagnosis.

DR. MORROW (by invitation) said that it was an unusually interesting case. Some years ago the English dermatologists were loath to believe that in this country we had the condition described as "tuberculous gumma"; they were very sceptical. A case of this type would receive antispecific treatment as a therapeutic test.

DR. TRIMBLE said he had seen six or seven cases and had made a very extensive study of several. This, however, was the first one he had seen that was so deeply excavated. The others were superficial and situated on the anterior portion of the tongue.

DR. WHITEHOUSE agreed with what had been said; he would never have thought of the diagnosis from the appearance of the lesion.

DR. LANE said that the finding of tubercle bacilli in the deep tissue settled the question that the lesion was tuberculous, even if the Wassermann test was positive.

DR. WILLIAMS said that it was a very interesting case and certainly suggested a syphilitic condition rather than tuberculosis. It was less "angry looking" than one would expect in a tuberculous condition.

PAPULAR TUBERCULID. Presented by DR. POTTER.

The patient was a Hebrew boy, aged 16 years. When 3 years old, he had had a number of small papular lesions on the face; these gradually disappeared, leaving scars. Since then similar lesions had developed on the hands and forearms. Roentgenograms showed tuberculosis in the right and left apices.

DISCUSSION

DR. HEIMANN said he had seen this same patient at the hospital six or seven years ago, with lesions like those presented. At that time, the patient was given tuberculin injections. The condition would grow better and then worse, so it was understood there was no direct connection between the alleged tuberculous lesions and the injections. In spite of calling these lesions tuberculous, histologically there was very little ground for it. In his opinion there was no justification for calling it by any other term than necrotic granuloma.

DR. TRIMBLE said that, if he remembered correctly, Dr. Johnston was the one who urged the use of the term necrotic granuloma. In his opinion, the condition spoken of by Dr. Morrow and that described by Dr. Heimann were the same.

The speaker believed that the tuberculin test should be accepted with a grain of salt. He did not believe, however, that 90 per cent. of normal persons would react positively to the tuberculin test. He had employed the Moro reaction on about sixty persons, twenty-three of whom had tuberculosis of the skin—not tuberculids—and all were positive. There were several tuberculids, all of which were positive. There were nine or ten lupus erythematosus cases, only one of which was positive; and a number of syphilitics, none of which was positive. The test was made in the same way every time and was very carefully done, applying the same amount of friction in using the ointment, for two minutes in each case, and the reaction took place in thirty-six or forty-eight hours. All the tuberculosis and tuberculid cases were positive, and several of the controls were positive; and in many of the positive controls it was afterward found by careful clinical examination that the patient had tuberculosis elsewhere. He thought the Moro test a little better than the von Pirquet test, since it seemed to give a less number of positive reactions in apparently healthy persons. From this experience he thought some consideration should be given to the tuberculin test.

DR. JOHNSTON said that there was a large proportion of latent tuberculosis in the whole population. Any one who had studied at the necropsy tables must have been impressed with the large number of tuberculous lymph nodes found. There were too many sources of error to attach a tuberculosis tag on these eruptions. Some of these cases cleared up under hydrotherapeutic treatment alone.

FILIFORM VERRUCA—NEVUS VERRUCOSUS CONGENITA. Presented by DR. POTTER.

The patient was a girl, aged 12 years, who had just come under observation. She stated that she had had the lesions ever since her birth and that her mother thought they were due to the fact that she (the mother) was frightened by a chicken while pregnant. The patient presented these congenital filiform warts all over the body; there were also some flat warts on the left hand and some warty excrescences under the nails of both hands. The case was presented on account of the unusual distribution of the lesions.

DISCUSSION

DR. WISE agreed that the process was a nevus, but said that the occurrence of filiform verrucae with a nevus was most unusual.

DRS. MACKEE AND HEIMANN also agreed with the diagnosis.

DR. WINFIELD reported on the case with peculiar red patches over the body, in which a diagnosis of premycosis had been made. At the suggestion of Dr. Johnston, he had put the patient on a treatment of mixed pituitary and thyroid gland, and the man was now almost well. The itching had stopped, the skin had thinned down, and the redness was disappearing.

CHICAGO DERMATOLOGICAL SOCIETY

Regular Meeting, Feb. 20, 1917

WILLIAM ALLEN PUSEY, M.D., *President*

LEPRA ANESTHETICA. PRESENTED BY DR. QUINN

The patient was a man, aged 26, who was a clerk in a wholesale house. He was a native of British Guiana, South America. The trouble had been present for about two years, first appearing on the left heel, and about a year later the right heel had become involved. The first skin symptoms were noticed on the forehead, as a pale spot which was somewhat depressed. There were large patches on the forehead, on both arms and both legs and on the trunk. The lesions consisted of diffuse areas of brownish red infiltration with marked anesthesia of all the erythematous portions.

DISCUSSION

DR. HARRIS asked if the scaly patches were psoriasis, and thought it would be interesting to have a section made to see if these lesions were really leprosy.

A series of cures had been reported from the Philippines in which they had used chaulmoogra oil, both by mouth and deep injection.

The absence of active lesions would not prove that the patient did not have leprosy, for many of them had had no active lesions for years. The speaker thought most of the lesions in this case were simply erythematous.

DR. EISENSTAEDT said that there was a nurse who had been in the Riehl Clinic for thirty-three years and during all that time there was at least one leper in the ward, but the nurse was in good condition after nursing them for that length of time.

LICHEN RUBER MONILIFORMIS. PRESENTED BY DR. QUINN

The patient was a man, aged 35, a tinsmith by occupation, and a native of Russia. The trouble had been present about six months.

The lesions were small and papular and arranged in rows along the course of the nerve trunk, extending from the right scapular region to the dorsum of the right hand, along the extensor surface of the upper arm and along the forearm.

DISCUSSION

DR. HARRIS was not prepared to say that it was a lichen planus. He said the only thing he saw that spoke for the disease was the fact that it itched, but it did not show much evidence of scratching. He could not account for the peculiar distribution beginning in the midline on the back and going directly over the course of the nerves. The speaker said he should want to see a biopsy before he would call it a lichen planus. He thought it a so-called *strichförmige* eruption.

DRS. POTTHOFF, HURLBUT, WAUGH, ZEISLER, EISENSTAEDT AND SHAFFNER thought that it was lichen planus.

DR. McEWEN said he had seen only the arm lesions, not those on the back. It did not strike him as being a typical lichen planus but he thought it belonged in that group.

DR. STILLIANS thought that it was not necessary to find the typical small, flat, angular, shiny papules to make a diagnosis of lichen planus, but that often the diagnosis was made without them. He considered this case lichen planus.

DR. PUSEY thought the case was not one of lichen ruber moniliformis. Moniliform meant beadlike, not linear. This eruption was not beadlike, but it was simply arranged in lines. The cases of lichen moniliformis that had been described were symmetrical, often extensive eruptions. This case was confined to one part of the arm and shoulder and bore no close resemblance to the cases of generalized eruption which had been described as lichen ruber moniliformis. The speaker thought it a very interesting case on account of the peculiar linear arrangement and called it an illustration of the striking pictures that lichen planus could produce. On the back of the hand, there were many umbilicated, typical lichen planus lesions, and the patch on the back of the hand as a whole was a lichen planus patch.

DR. HARRIS said there were published whole series of pictures of the *strichförmige* eruption of acquired lesions coming on like this and lasting for several months and then going away. The lesions had been separated from the lichen planus group.

DR. QUINN thought that the poorest place to study the case was on the back of the hand. He believed that was aggravated by the man's occupation, but the lesions on the arm and back were not influenced in that way. He thought most of the lesions on the back of the hands were the kind that any worker would have. He did not consider the color at all typical of lichen planus. Most of it was dark red. Over the hands it might be slightly purple but most of that was a dermatitis due to the patient's occupation plus the inflammation along the nerve. The speaker thought the nearest case to this one that he had ever seen was one Dr. Hyde had called lichen ruber moniliformis.

ERYTHEMA OF THE UPPER LIP. PRESENTED BY DR. HARRIS

The patient was a man, aged 28, who had been shown before, having been under treatment ever since the previous examination without improvement. The lesion had been present for about four years and consisted of redness of the upper lip which was strictly confined to the hair line, and showed no papules, or pustules, or infiltration. A diagnosis of seborrheic dermatitis had been suggested.

DISCUSSION

DR. QUINN thought it a very interesting case but did not venture a diagnosis.

DR. SHAFFNER thought it looked like *ulerythema ophryogenes*, which more commonly occurred on the eyebrows.

DR. EISENSTAEDT said that he agreed with Dr. Shaffner, also that the condition had been present long enough, although it did not show atrophy nor alopecia. For that reason he thought that the expression "*erythema sycosiforme*" would express the clinical picture.

DR. PUSEY thought the location of the eruption made it highly probable that the process had to do with the follicles of the mustache. As the eruption was absolutely limited to the hair area of the upper lip, this made him feel that the process was a subacute folliculitis of the mustache hairs. It might be a *Staphylococcus albus* infection, for example, or a seborrheic dermatitis. He offered this simply as a suggestion. He did not pretend to make a positive diagnosis of folliculitis.

DR. HARRIS said the whole lip had been epilated and treated with white precipitate ointment and again with sulphur, but the erythema remained. He had then lost track of the man, who had returned the day before with just the same condition. The symptoms did not bother the patient except for the appearance. There had been no abscess or folliculitis that could be seen. He said he should like to make a biopsy but was afraid it would leave a scar. He thought it was unquestionably a folliculitis but did not know what the infection was. At times it was somewhat scaly.

MERCURIAL STOMATITIS. PRESENTED BY DR. HARRIS

The patient was a woman, aged 34, who had worked for five years as a nurse in the syphilitic ward of the county hospital. A year and a half previously, she had first had trouble with her teeth, which came on suddenly and was supposed to be pyorrhea.

Examination showed a gingivitis around all the teeth of both jaws, with a necrotic membrane, typical of a mercurial stomatitis. There was no history of the patient having taken mercury but she had worked in the syphilitic ward for five years where mercurial inunctions were constantly being used.

DISCUSSION

DR. McEWEN had seen the patient in an attack a year previously, at which time the lower front teeth were involved. He did not recall that the other teeth were affected. He thought the condition presented was much more extensive and severe than the previous one. He was sure that the patient had lost weight recently.

DR. HARRIS said the dentist who had been treating the patient told her she had syphilis. The gums were separated from the teeth and badly swollen. She had had the condition for more than a year. When she was in the erysipelas ward for three or four months, she had not been troubled with it. She had been head nurse in the syphilitic ward for a time and was not as closely associated with the patients as previously. The condition was not present then, but when she had returned to the ward as a nurse, it had become more pronounced.

PHILADELPHIA DERMATOLOGICAL SOCIETY

Regular Meeting, May 21, 1917

HENRY K. GASKILL, M.D., *Chairman*

URTICARIA PIGMENTOSA. PRESENTED BY DR. HARTZELL

The patient was a white woman, aged 26. For the past seven years she had been noticing a small, flat papular eruption on various parts of the body. At the time of presentation there were about seven to ten lesions of this

type on the flexor surfaces of each arm, very slightly elevated and brownish in color. There had been very few on the face and on the legs but there was none on those parts when presented. There was not and never had been any itching nor any artificial dermatographia demonstrable. The diagnosis was made very largely by biopsy, a large number of mast-cells being present. Dr. Stelwagon said that from the superficial examination, he would be inclined to think of a disseminated lupus but agreed with the diagnosis.

RHINOSCLEROMA UNDERGOING MALIGNANT CHANGE. PRESENTED
BY DR. STELWAGON

This patient was shown at the Philadelphia Dermatological Society, Oct. 16, 1916, with the report as follows:

"Rodent Ulcer Following Rhinoscleroma. Presented by Dr. Stelwagon. J. F., a white woman, aged 52, was presented before this Society on Nov. 11, 1911, with an unchallenged diagnosis of rhinoscleroma. She had been treated with roentgen ray and the tissue had broken down. Radium was afterward used but the tissue continued to break down beyond the point of application, until at the time of presentation the entire nose was gone as well as the upper lip. A piece of tissue was excised by a member of the pathologic department of Jefferson Hospital, and the diagnosis made of basal cell epithelioma on a gummatous syphilid, with numerous spirochetes in the tissue. Several doses of salvarsan had made no impression on the lesion. Comment was made about the finding of the numerous spirochetes in this gummatous tissue."

In the eight months which had intervened, the malignant process had extended much more deeply until the entire nasal cavity had been destroyed. However, there was none of the raggedness of ulceration, the lesion being well defined and clean-cut, looking more as if the tissues had been scraped out of a mold of red putty rather than removed by a degenerative process. Around the margins, the cheeks were very hard and boardlike and in the same condition as was her nose when first seen in 1911. The glands of the neck were very much enlarged on both sides and particularly so on the right, and in one place were almost ready to break down. Apparently it was only a question of a short time when there will be a general disintegration of all the glandular structures in that vicinity.

CASE FOR DIAGNOSIS. PRESENTED BY DR. HARTZELL

The patient, M. C., aged 56, was presented at a previous meeting by the speaker. This case had been presented as one of a generalized dermatitis but it was recalled that the patient had been originally shown five years previously with a typical eruption of dermatitis herpetiformis, but this time it bore absolutely no resemblance to that disease. The patient was covered with a marked scaling eruption on a mildly inflammatory, very much indurated base and extending over the entire body, accompanied by intense itching. At the time of presentation, this eruption was not uniform but assumed, in certain places, an annular form. These rings could be distinctly seen in a good light and were mainly of an erythemato-papular type, though the speaker said at times he had seen vesicles. There was apparently some slight improvement but no amelioration of the intense itching. On the neck, there was a marked tendency to keloidal formation though this manifestation was not observed on any other parts of the body and was of recent formation. The suggestion was made that we might have to do with the premycotic stage of a mycosis fungoides.

CASE FOR DIAGNOSIS. PRESENTED BY DR. STELWAGON

This patient was a white man, aged 22, who stated that two years previously, he noticed an eruption over the left hip and, according to his statement, a lesion once formed never disappeared. At the time of presentation, his body from the level of the eighth rib to half way down the thigh was irregularly covered with various sized and various shaped lesions. Some were ring-shaped

and still others in the form of a figure 8 or in fanciful contours. The older lesions showed considerable induration but this did not occur in the more recent ones. All were distinctly and sharply elevated above the surrounding skin with no surrounding areas of inflammation. The color of the more recent lesions was a pinkish brown and on the older ones, much more distinctly brown. On many of the lesions there were pea-sized nodules superimposed. There was no associated itching. The patient had applied for enlistment in the Navy and on account of the unusualness of the eruption had been referred to the speaker, who believed that the case was one of erythema perstans but that it was not possible at the present time to ignore an additional diagnosis of leprosy, in spite of the fact that there were no areas of anesthesia.

NEW YORK ACADEMY OF MEDICINE, SECTION ON DERMATOLOGY

Regular Meeting, April 3, 1917

GEORGE M. MACKEE, M.D., *Chairman*

HEMORRHAGIC SARCOMA OF KAPOSÍ TREATED BY THE ROENTGEN RAY. Presented by DRs. MACKEE AND REMER.

M. L., man, aged 62, had been presented about two years ago, at which time the disease affected the hands, feet and both the extensor and the flexor surfaces of the forearms and legs. The lesions consisted of diffuse, purple, indurated and raised plaques, some of which were reddened and inflamed and others quite flat and on a level with the normal skin. In May, 1915, there developed on the sole of the left foot an elevated, boggy, ulcerating lesion, about the size of a dime. The hands were swollen and edematous and there was severe pain. The roentgen ray was applied to the lesions on the palms, an average dose of 6 skin units—24 Holzknacht—being given. The lesions on the dorsum of the hand and extensor surfaces of the arms received 7 skin units—28 Holzknacht. The lesion on the foot, one treatment consisting of 3 skin units—12 Holzknacht. All the treatments were filtered through 3 mm. of aluminum.

DISCUSSION

DR. WISE said that Dr. Remer had failed to impress on the members of the Section the fact that this man suffered a great amount of pain which made it impossible for him to go to work. A few roentgen-ray treatments caused complete cessation of the pain.

DR. MACKEE said that the lesion on the sole of the foot which Dr. Remer referred to, was growing very rapidly when they first saw the patient and it had more the appearance of a pigmented sarcoma. They thought, from the rate at which the lesion was increasing in size, that the end was near, and were both pleased and surprised to see the lesion clear up under one roentgen-ray treatment.

EPITHELIOMA AND RADIODERMATITIS. Presented by DRs. MACKEE AND WISE.

N. D., male, aged 45, married, born in Russia, was from Dr. Fordyce's service. Nine months ago, a small, hard nodule appeared on the left cheek, below the eye. This was cauterized and remained well for a short period. After several months, the lesion recurred in situ and was then treated, according to the patient's statement, by means of six exposures to the roentgen ray, the last of which was administered three weeks ago. The patient presented a slightly depressed lesion, about three-fourths inch in diameter; the surface was dry, and the edges were nodular. Surrounding this ulcer was an area of erythema and swelling, appar-

ently provoked by an irritating application, or possibly produced by the heat of an active roentgen-ray tube.

DISCUSSION

DR. ROSEN said that when he examined the patient, about four weeks ago, the lesion presented an entirely different appearance. It was circular in outline, more or less sharply circumscribed, with a deep infiltration of the tissues extending about one-half inch outside its circumference. The base was covered with a thick crust caused by the various ointments which had been applied. The speaker said his first impression was that the lesion was either an epithelioma or gumma. The Wassermann reaction at two different times was $++$. He recommended antisyphilitic treatment, and externally, emplastrum hydrargyri and thought it was the mercurial plaster that caused the dermatitis which was present when the patient was shown.

DR. REMER said that the patient stated that he had had six roentgen-ray treatments, each of fifteen minutes' duration, with the tube almost in contact with the skin. If his last treatment had been given three weeks ago and of fifteen minutes' duration, the speaker thought that the dermatitis might be an erythema produced by the roentgen ray.

DR. MACKEE said that the patient presented a rather confusing condition. It did not look, if he could speak personally, like an ulcerating radiodermatitis, unless it was one that had run its course and was healing. It was difficult, clinically, to tell what had caused the irregular ulcer. There was a walnut-sized, deeply-seated nodule near the nose. When the speaker saw the patient a few days ago the nodule was hard; when presented before the Section it was soft. It would be necessary, he said, to watch this case and be careful about the diagnosis.

ACTINOMYCOSIS CURED BY THE ROENTGEN RAY. Presented by
DR. REMER FOR DR. STEINKE.

M. S., woman, aged 20 years, married, had one child who died when 1 year old. The patient's father was dead. Her mother, two sisters, a brother and her husband were living and in good health. When a child, she had had whooping cough and measles, otherwise she had been in good health until May, 1916, when she noticed a swelling on the left side of her face as if caused by an ulcerated tooth. The swelling did not subside so she visited the hospital, on two occasions, about the middle of June and had the abscess incised. When first seen, July 23, 1916, there was an irregular inflamed lesion on the ramus of the left jaw, extending from the angle of the jaw to about 3 inches forward toward the symphysis and about 2 inches wide. This showed a number of craterlike projections with pus discharging from the openings, the areas in between being red and inflamed, tender to the touch but otherwise not painful. There were no lesions on the inside of the mouth and a roentgenogram of the lower left maxilla revealed no involvement of the bone. The pus from the lesion was examined microscopically at the Dermatological Laboratory of the Vanderbilt Clinic and the ray fungus was demonstrated.

July 24, 1916, the patient complained of pain in the lower extremities and walked with a slight limp. There was slight nausea but no vomiting. August 2, the pain in the lower extremities was more severe with some swelling of the right elbow. She was admitted to the hospital, August 4, with an aggravation of all the symptoms, the right elbow very much swollen and painful but with no sign of any inflammation. A roentgenogram was taken but it was negative as also was an examination of the chest, abdomen, kidneys, blood and a Wassermann test. September 1, the lesion showed a decided improvement, only a small amount of pus discharging from its lower angle near the symphysis, the remainder of the lesion was dry and all signs of inflammation had disappeared. She remained in the hospital until September 3, 1916, when she was discharged, the lesion being healed. During her stay in the hospital she had received no treatment of any kind and the cure was attributed to the one roentgen-ray treatment.

When the patient was presented before the Section the lesion had entirely disappeared, leaving an irregular and somewhat keloidal scar. A second roentgen-ray treatment had been given in the hope of reducing the hypertrophied scar. Potassium iodid had never been administered.

LUPUS ERYTHEMATOSUS OF THE LOWER LIP. Presented by
DR. BECHET.

The patient was from Dr. Trimble's service at the University and Bellevue Clinic and had been shown before the March meeting of the Section with a similar diagnosis. At that time one of the members thought the lesion was syphilitic and suggested further specific treatment; since then the patient had been given one injection of 0.3 gm. of salvarsan and from one-eighth to one-sixteenth grain of bichlorid of mercury, three times daily, by mouth. There had been no change in the appearance of the lesion. The patient was shown again with the same diagnosis.

DISCUSSION

DR. BECHET said this case had been shown at the last meeting and Dr. Lapowski thought it was syphilis; two other physicians agreed with the diagnosis of lupus erythematosus. When he first saw the case he thought it was syphilis, but later changed the diagnosis to lupus erythematosus, because the appearance of the lesion, on more extended observation, seemed to coincide more with lupus erythematosus than syphilis. Its resistance to specific treatment seemed also, in all probability, to exclude syphilis.

DR. TRIMBLE said that this patient had been under observation at the University and Bellevue Clinic for some time. At first, the differentiation between syphilis and lupus erythematosus could not be made. He was, however, at the patient's first visit in favor of the former diagnosis. The Wassermann reaction had been repeatedly negative; and from the fact that very little improvement had occurred following the administration of mercury and the iodids, they had about reached the conclusion that the lesion was one of lupus erythematosus.

LYMPHANGIOMA CIRCUMSCRIPTUM. Presented by DR. TRIMBLE.

The patient was a young girl, aged 15 years. The lesion was first noticed by the patient when she was 8 years old and had increased in size slowly since that time. At the time of presentation it was about the size of a half-dollar, and consisted of a plexus of dilated lymph vessels. Outlying lymph vesicles could also be observed.

URTICARIA PIGMENTOSA. Presented by DR. GOLDENBERG.

The patient, Fannie W., aged 23, was born in Austria. She was married, had one child living and had had no miscarriages. The family history was negative. Six years ago, after her arrival in this country, an eruption appeared on the extensor surface of both hands. This eruption spread until the entire body became affected, including the face and neck. The patient presented a generalized macular eruption, the lesions varying in size from a split pea to that of a small bean and of a light brown to a yellowish brown color. Friction over these pigmented spots resulted in the appearance of an urticarial wheal. The lesions did not disappear. The only subjective symptom was slight itching at times but there was no evidence of any scratch marks.

DISCUSSION

DR. HEIMANN said that this eruption belonged to a group of rare dermatoses that were not well defined. Urticaria pigmentosa began in infancy and usually disappeared during adolescence. He could not say whether or not a histologic examination would be of any real value in Dr. Goldenberg's case. He imagined that the histology would show a subacute inflammation similar to that found in the erythema perstans group. If this were so, Dr. Goldenberg's case he thought,

should be designated as a pigmented urticaria rather than urticaria pigmentosa—a name which had been given to a definite clinical entity, was also called xanthelasma, which histologically showed an infiltration made up almost exclusively of mast cells.

DR. TRIMBLE said that he did not think we should be too dogmatic about a classification. He was willing to accept as urticaria pigmentosa cases that developed in adolescence and even in adults. As an analogy he mentioned syphilis hereditaria tarda, the acquired type of epidermolysis bullosa and xeroderma pigmentosa. This last affection, when known to be congenital was spoken of as xeroderma pigmentosum, and when it appeared in adult life it was called sailor's skin. This was a distinction without a difference; adult cases having practically all the symptoms, such as telangiectases, keratoses, malignant freckles, etc., were in his opinion cases of xeroderma pigmentosum, and this reasoning could apply to a number of other affections.

DR. WISE said that he agreed with Dr. Trimble. Furthermore, he did not think that the history of Dr. Goldenberg's case was reliable. It was possible that the girl had had lesions in childhood that had been overlooked. The speaker said that he had seen cases of urticaria pigmentosa which had developed in adult life and which under the microscope showed an infiltration consisting of mast cells.

DR. HEIMANN said that he did not make the statement that this was not a case of urticaria pigmentosa. If under the microscope mast cells were present, it was a case of urticaria pigmentosa. If not, then it must be placed in the other group, namely, pigmented urticaria.

DR. MACKEE said that he also agreed with Dr. Trimble that there was no reason why urticaria pigmentosa should not occur in adolescent or even in adult life. Nevertheless he personally had seen no cases that had not begun in childhood. He thought that clinically this case differed somewhat from the classic picture seen in urticaria pigmentosa. In the latter the lesions were larger, irregularly elevated and outlined and the color was not that of ordinary pigmentation as seen in this case, but was a yellowish or yellow-brown color, resembling the color seen in xanthoma. Clinically, he was inclined to agree with Dr. Heimann and favored the tentative designation of pigmented urticaria. A biopsy, of course, would settle the diagnosis.

TUBERCULOSIS VERRUCOSA IN A SYPHILITIC. Presented by DRS. MACKEE AND ROSEN.

The patient, N. M., man, aged 29, a native of Greece, was treated by Dr. Fordyce at the City Hospital. He presented a large serpiginous lesion on the buttocks which first appeared nine months ago. The penis exhibited several small scars, said to have been the sites of chancres. Examination of tissue from the lesions on the buttocks revealed a typical structure of tuberculosis. The Wassermann test was +++ and the antisypilitic treatment had little if any influence on the disease of the skin. From a clinical standpoint, the serpiginous lesions of tuberculosis cutis were indistinguishable from those of syphilis, but there was no doubt as to the microscopic picture of tuberculosis in the excised section of skin.

DISCUSSION

DR. HEIMANN said that he had examined the specimens and could certify that while he had not been able to demonstrate the tubercle bacillus, the general structure was certainly that of tuberculosis. This, together with the fact that the lesions did not respond to vigorous antisypilitic treatment, would tend to confirm the diagnosis of tuberculosis.

DR. MACKEE said it was well established that it was sometimes impossible to differentiate clinically and sometimes even histologically between tuberculosis and syphilis of the skin. He recently presented a case before the Manhattan Dermatological Society of an infiltrated plaque on the posterior aspect of the right

leg of a young girl. The plaque was of a deep-brownish color and had a scalloped border in which there were four punched-out ulcers. Everyone unhesitatingly made a diagnosis of syphilis. But histologically, however, the picture was very distinctly that of Bazin's disease. Furthermore, the patient did not improve under vigorous antisyphilitic treatment but the condition did yield at once to roentgen-ray treatment. Such cases taught one to be extremely careful in making diagnoses.

DR. ROSEN said the patient had received two courses of salvarsan, eight injections each time, the average dose being 0.35 gm. and altogether thirty mercury salicylate injections intramuscularly. The lesions had not responded to this energetic treatment. A biopsy had been made and the pathologist reported tuberculosis. The patient was then referred to the roentgen-ray department for treatment and after a few treatments the lesions had begun to involute.

DR. TRIMBLE said that clinically he would regard the case as one of syphilis. The fact that there was no verrucose element, and that active ulceration was going on, would lead one away from the diagnosis of tuberculosis; the festooned border was also characteristic of syphilis. Furthermore, the lesion was only of one month's duration, and it seemed almost impossible that a lesion of tuberculosis could grow so rapidly.

SYCOSIS BARBAE, FOLLICULITIS OF THIGHS ASSOCIATED WITH A PECULIAR ALOPECIA. Presented by Drs. MacKEE and HEIMANN.

M. R., a man, aged 42, from Dr. Fordyce's Clinic, presented an ordinary sycosis of the beard, which had existed seven months. The skin of the thighs, especially the anterior surfaces, also showed marked evidences of infection of the hair follicles. About the genitals, however, was a sharply circumscribed area presenting a striking absence of hair—in other words, an alopecia. The skin in this area was perfectly smooth and free of all evidences of hair growth. The appearance was that of an area recently depilated by means of the roentgen ray or a chemical depilating agent; but the patient gave no history to confirm this suspicion. It was not possible to ascertain the actual cause of the alopecia. Examination for the tinea fungus was negative.

DISCUSSION

DR. TRIMBLE said that he agreed with the diagnosis of sycosis. He thought that the condition on the thighs and lower abdomen was the same as that on the beard. He also thought that the alopecia was due to some form of treatment. The patient had told him that a salve had been used and the speaker thought that this salve might have been a depilatory.

DR. PAROUNAGIAN agreed with the diagnosis of sycosis and thought that perhaps roentgen-ray treatment had caused the loss of hair.

DR. MacKEE said that the very complete alopecia certainly suggested some application as a causative factor. However, he noted that the alopecia both on the thighs and in the pubic region was only in the cured areas and that the hair was growing at the active margin, where there was a pronounced papulo-pustular folliculitis. Although doubtful, it might be, nevertheless, that the loss of hair was due to the destruction of the hair follicles by the follicular suppuration. In appearance the bald areas certainly looked as though they had been shaved. The speaker said he did not understand why the question of parasitic sycosis had been suggested as the case had all the appearances of an unusually widespread sycosis vulgaris.

ERYTHEMA MACULATUM PERSTANS. Presented by Drs. MacKEE and WISE.

The patient, S. A., man, single, aged 45, from Dr. Fordyce's Clinic, gave a history to the effect that the lesions began three years ago and persisted until December, 1916. They consisted of smooth, flat, reddish and violaceous macules,

located on the arms, legs, buttocks and scrotum. On the scrotum, the surface of the lesions was somewhat moist and eczematous in appearance. In December, a fresh outbreak of reddish patches occurred, most of them reappearing in the same sites as on the previous eruption. These patches would persist for weeks or months, without showing signs of involution. They were uninfluenced by ordinary forms of treatment.

DISCUSSION

DR. ROSEN said he could not understand, looking at the case for the first time, a diagnosis of erythema multiforme perstans. There was a moist eczema of the scrotum extending between the gluteal folds, with slight scaling and cracking. The diagnosis he would consider would be chronic eczema.

Dr. Abramowitz (by invitation) said that he thought that the eruption was an eczema. The lesions on the scrotum and thighs certainly looked like eczema.

Dr. MacKee said that the lesions were too sharply margined to be an eczema. The lesions on the scrotum and thighs were eczematous and in that sense they could be called an eczema—a secondary eczema. The lesions on the other parts of the body were of sudden onset, erythematous and sharply margined.

Dr. Wise said the case would have to be presented again before a definite diagnosis could be made and that he would present the patient at a future meeting.

CHILD WITH SCLERODERMA IMPROVED UNDER THYROID EXTRACT. Presented by Dr. OULMANN.

Ph. A., boy, aged 4 years, was presented at two previous meetings with the diagnosis of polyglandular syndrome. When last shown before the Section, the boy presented almost normal skin. The warty excrescences on the joints of the wrists, knees and especially over the hip had disappeared, as well as the rhagades. The myxedematous skin of the trunk and extremities presented only a slight puffiness on the latter, while the scleroderma-like infiltration of the skin had changed to normal. The mental condition was also normal. The roentgenogram still revealed an enlargement of the thymus and the retardation of bone formation still existed. Some epiphyses not present before had developed. The treatment had consisted in the administration of one-half grain of extract of thyroid.

DISCUSSION

Dr. Wise said that he had seen this patient on two occasions and that the condition was a very unusual one. The child had had a series of hard nodules on the outer surfaces of the thighs and on the buttocks. These nodules had disappeared apparently as the result of thyroid therapy. The speaker said that he did not know whether these nodules were a part of the symptom complex of myxedema or whether they could be placed in the category of scleroderma. The result of the medication in such a short time was very striking.

Dr. Heimann said that every time he saw this case he was more perplexed. At first he thought it was cretinism. Then he favored scleroderma, particularly since Dr. La F  tra, at a previous meeting, favored this view. At first, thyroid therapy seemed to do no good. Later, however, there was distinct improvement. The speaker said that he would like to hear Dr. Satenstein speak about glandular therapy in this case. There seemed to be two well-defined groups of scleroderma: one group appeared to respond to thyroid therapy; the other to pituitary extract. One type was distinctly scleroderma, while the other was more a condition of cretinism or myxedema but resembling scleroderma. In the one type there seemed to be a deficiency on the part of the thyroid gland, in the other a pituitary deficiency with increased sugar tolerance. The speaker recalled a patient who was able to ingest 300 gm. of sugar before developing glycosuria—one and one-half times above the normal. This indicated hypopituitarism, although pituitary medication failed to decrease sugar tolerance.

DR. SATENSTEIN (by invitation) said that it was well known that myxedema did not occur before puberty, understanding by myxedema, a degeneration of physiologic normal tissue; whereas transitory edemas of various degrees and persisting for varying lengths of time did occur at any age in the so-called thyroid insufficiency. He would classify the case presented under this heading. To answer Dr. Heimann, it seemed to the speaker that there were cases classified as scleroderma which were really types of myxedema, in which partial absorption of the degenerated tissue had begun and that these were the cases that responded to the thyroid therapy, whereas the cases that showed true sclerodermatous tissue under the microscope, did not respond to the thyroid therapy. The speaker said that he did not understand the difference but only related the facts as he saw them. He also stated that disturbed sugar tolerance was almost always present in cases of thyroid insufficiency.

CHRONIC ECZEMA IN A SYPHILITIC PATIENT. Presented by DR. GILMOUR.

The patient, J. D., was a man, aged 26, married, born in the United States and worked as a clerk. The family history was negative. The patient denied syphilis and no history pointing to that disease could be obtained excepting that when a young man he had a mild case of gonorrhea which disguised, perhaps, a primary lesion. The disease started as papules with thickening. The condition had been present for the past six or seven years on the finger tips but had never been quite so extensive. There had never been more than moderate itching. Water coming in contact with the fingers made the condition worse. When the patient was in the country in the summer, the lesions disappeared. There had been no treatment for several weeks to modify the condition which was present when the patient was exhibited before the Section. The Wassermann reaction was + + +.

On the right hand, the skin on the palmar surface of the distal phalanx of the thumb and all the fingers, except the little finger, was thickened and was of a slightly verrucose character. The surface was deeply cracked but there was no bleeding. The surface of the affected area had a slight black tinge. This thickening extended under all the finger nails. The hypothenar eminence of the right hand was slightly thickened and scaly. A similar condition existed on the same area and in the location on the left thumb, the left index and middle finger. The border of these lesions was sharply defined. On the backs of the heels there was a moderate thickening but it was not cracked or verrucose in character. A line of thickening three-fourths inch broad extended on the sides of both feet from the heels to the toes. This line was just above the outer palmar surface which bore the weight of the body.

DISCUSSION

DR. BECHET said that he thought the lesions were too sharply defined with scalloped edges, and raised, dry, fissured surfaces to be eczema. He had seen a number of cases of bilateral syphilis of the heels and soles, which looked exactly like the lesions in Dr. Gilmour's case. For these reasons he believed the lesions were syphilitic and not eczematoid.

DR. MACKEE said that the marked and adherent horny layer, the markedly thickened skin, the rather sharp limitation and rather sharp margins with irregular outlines, suggested the possibility of syphilis in spite of the fact that the eruption was bilateral and symmetrical. He would not be willing to hazard a diagnosis between the two diseases in this case.

DR. GILMOUR said that he had seen a syphilitic eruption resembling this one on the foot and especially on the heel. He still favored a diagnosis of eczema.

DR. ABRAMOWITZ (by invitation) suggested a diagnosis of keratoderma blennorrhagica.

MANHATTAN DERMATOLOGICAL SOCIETY

*Regular Meeting, March 9, 1917*FRED WISE, M.D., *Chairman*

NODULAR SYPHILIS OF THE GLANS PENIS. Presented by DR. PAROUNAGIAN.

The patient was an Armenian, aged 25, employed in a spoon factory. The duration of his trouble, which was on the glans penis only, had been about nine months. He denied intercourse and any venereal history. The lesions consisted of elongated and traverse scars, eight or ten in number, on the glans penis. When the exhibitor first saw the patient, February 12, there were three dark reddish, elevated nodules and two large, comedolike, active lesions; all the remainder were scars. The possibility of the affection being tuberculosis or syphilis was thought of, although none of the lesions resembled either disease. The Wassermann reaction was + + + +. Thereupon salvarsan was administered, which removed the nodules and benefited the condition greatly, the old scars remaining.

DISCUSSION

DR. HOWARD FOX said that when he saw the case, several diagnoses were considered, including a nodular syphilis, tuberculosis and chancroid. There were several distinct, hard nodules, several ulcerations and punched out scars. The absence of pain and inguinal adenopathy and the long duration spoke against the diagnosis of chancroids. The tentative diagnosis of syphilis was later shown to be correct from the result of treatment.

TUBERCULOSIS, CUTIS, SCROFULODERMA, SYPHILIS AND LICHEN SCROFULOSORUM. Presented by DR. PAROUNAGIAN.

The patient, Mr. M. M., an Armenian, aged 32, had been presented before the Society at the January meeting, with the diagnosis of syphilis of the nose, scrofuloderma, and tuberculosis of the lower extremity. As the opinion of the majority was that the entire eruption was syphilis, the exhibitor administered six salvarsan and six mercury salicylate injections, without any improvement in the skin manifestations. Through the courtesy of the Vanderbilt Clinic, a biopsy was made from the leg lesions and Dr. Satenstein reported tuberculosis cutis of the sarcoid type. As the condition was not improved by the vigorous antisiphilitic treatment and in view of the microscopic picture, the speaker regarded the whole condition a tuberculous process. As to the eruption on the body, it was believed to be due to potassium iodid and salvarsan, though after careful examination a diagnosis of lichen scrofulosorum was made and confirmed by microscope.

Description of the eruption on the body: The lesions of lichen scrofulosorum were confined to the trunk mostly, and a few lesions were noticed on the arms and upper portions of the thighs. The lesions were small, grouped papules, situated at the orifices of the follicles. Some had scaly tops, reddish in color. They were most pronounced on the sides of the chest. The lesions at the sacral region had shining, flat tops, violaceous in color, somewhat resembling lichen planus. There was no noticeable itching and the duration was about four or five weeks.

DISCUSSION

DR. MACKEE said that he had, at the time of the previous presentation, thought that the leg lesions were syphilitic and that the scars on the body might be the remains of syphilitic or scrofulous gummas. The fact that the leg lesions had not improved under the influence of mercury, iodid, and salvarsan would rule out the diagnosis of syphilis. And the fact that the nose lesion had developed in spite of this treatment would tend to show that it, too, was

tuberculosis. Assuming that the lesions were tuberculous, both the nose and leg lesions could in all probability be classified as tuberculosis verrucosa cutis and the large, deep-seated scars on the chest were probably the remains of scrofulous gummas. The feature that interested the speaker most was the eruption on the trunk. This eruption was of recent development, it was papular and the papules were intimately connected with the hair follicles. On account of the grouping the eruption resembled, at first glance, a follicular syphilid. But the papules were flat topped and shiny instead of acuminate. Dr. Parounagian thought that this eruption was due to iodid of potash, but the speaker had never seen or heard of a follicular, papular eruption following the ingestion of iodid, although such an occurrence might be possible. The speaker agreed with Dr. Gottheil that the eruption represented a lichen scrofulosorum, developing in an adult.

DR. MOUNT said he believed the lesions, which were small, follicular papules in groups, on the chest, back and other portions of the body to be lichen scrofulosorum. He saw no reason, in an individual of that type, suffering with manifest tuberculosis in other parts of the body, why it should not be lichen scrofulosorum.

DR. SATENSTEIN said that the microscopic appearance of tissue taken from the lesion on the leg was distinctly tuberculous. There was absolutely nothing there to indicate either syphilis or lichen planus. As to the lesions on the body, he agreed with the remarks of Dr. MacKee. They must start sometime and probably were present for a long time but had not been noticed. The inflammatory reaction accompanying those lesions was, in all probability, due to the salvarsan and potassium iodid that the patient had received. It was nothing unusual for existing lesions of various types to be irritated by the administration of the drugs mentioned.

DR. OULMANN said that when Dr. Parounagian first presented the case and maintained the process on the legs was tuberculous, he thought it might be Bazin's disease. He did not say that the man might not have had syphilis besides.

DR. HOWARD FOX thought the case was especially interesting on account of the presence of an eruption that resembled lichen scrofulosorum. The rest of the eruption he considered to be lupus. He called attention to the fact that numerous cases of lupus had of late years been shown in New York, of widely different clinical types. Some of these were totally different from the ordinary picture of lupus occurring on the face.

DR. WEISS said the case fitted very well with tuberculosis, that there were here multiple ulcerations, most probably due to a scrofulodermatous condition. There was a broken down tuberculosis of the legs and as a corollary to it, lichen scrofulosorum, and he thought that these four conditions clinically, at least, identified the diagnosis.

DR. HOWARD FOX asked if any one could explain why we saw so few cases of lichen scrofulosorum in this country. Such cases were recorded in the foreign journals much more frequently than here. Whether we failed to recognize cases or whether they were really very rare, he was not sure.

DR. GOTTHEIL said he had seen one of these cases a good many years ago, in which Dr. Robinson had also made the diagnosis.

DR. WEISS thought the condition was largely due, in individuals so disposed, to perspiration and wearing an infrequent change of heavy underwear. In persons with the so-called tuberculous habit, excessive sweating was the order. Under the influence of warmth and moisture the development of lichen scrofulosorum was assisted. As people here had better environment, healthier conditions, more frequent change of underclothing, one did not meet the dermatosis so often.

LUPUS VULGARIS. Presented by DR. OULMANN.

The patient was an adult woman, who six years previously developed some brownish-red, symmetrical lesions on both legs. They were then the same size as when shown and were larger on the right leg than on the left. She had a few roentgen-ray treatments which made the skin a little paler. The lesions came out at once and remained unchanged. The speaker regarded the condition as lupus.

DISCUSSION

DR. GOTTHEIL said he saw nothing but stains on the skin, which might be due to an inflammatory cause.

DR. SATENSTEIN said that the lesions looked a good deal like the staining following carbolic acid burns. He suggested malingering as a diagnosis and advised microscopic examination of tissue from the lesions.

DR. MACKEE thought that a diagnosis of malingering should be considered. Carbolic acid might leave pigmentation that sometimes endured for months and years.

DR. WISE said he was strongly against making a diagnosis of malingering of six or seven years' duration in a young woman of the type presented. In such cases, evidences of hysteria and mental aberration were usually manifested. The self-inflicted lesions most often appeared on the arms and chest.

DR. OULMANN said the patient had oblong lesions when she first came to him and they were more reddish at that time. They became browner under the application of the roentgen ray. Some parts of the lesions turned paler, almost white. She had a tuberculous condition of the lungs. He regarded the case as lupus vulgaris even if he did not make out distinct lupus nodules at the time. The lesions never were ulcerated and there never was any change in the skin, until she came under treatment.

CASE FOR DIAGNOSIS. Presented by DR. OULMANN.

The patient was an adult woman, whose lesion had existed for about six months, on the outer side of both feet, below the malleolus. In these regions the patches exhibited a red rim, and in the front part the rim went over into erythematous plaques and a few telangiectatic lesions. As the lesions of Majocchi's disease had been discussed so much recently, the speaker presented this case for an opinion as to its being related to that dermatosis.

DISCUSSION

DR. SATENSTEIN said the patient had given some other facts. She stated that her glands were occasionally swollen and stiff, especially in the morning. He regarded this case as a disturbance of the endocrine system, similar to the angioneurotic edema presented by Dr. Ochs at the last meeting. Probably the direct cause was an insufficiency of the suprarenal glands due to an insufficiency of the thyroid. The thyroid was palpably enlarged. The speaker said that there were some dermatological conditions to which one could not give a direct clinical name, but best to classify them under a general heading indicating some internal disturbance.

DR. PISKO said he would make a diagnosis of dermatitis hemostatica in this case.

DR. WISE said he thought the case was one of "erythromelie" of Pick, now described as dermatitis atrophicans, in the early beginning, nonatrophic stage of the affection.

DR. OULMANN had suggested the name dermatitis hemostatica, which Dr. Pisko had mentioned and also thought of the erythemas which were more or less allied to angioneurotic conditions. He intended to observe the case further, to substantiate Dr. Wise's diagnosis of "erythromelie."

LICHEN PLANUS. Presented by DR. OCHS.

The patient was a man, aged 29, whose disease had been of three months' duration. He showed typical annular lesions of lichen planus of both arms and also annular lesions on the penis. There was a series of lichen papules over the chest following scratch marks, and also lichen planus of the hypertrophic variety on the legs. The interesting feature of this case was the short duration and extent of the disease. When he was first seen the lesions were more pronounced than when shown. There were no mouth lesions.

BAZIN'S DISEASE. Presented by DR. MACKEE.

The patient, E. M., was a woman, aged 23, born in Russia, and came from Dr. Fordyce's clinic. The duration of her lesions was six months. The speaker had presented her about two months previously, with a brownish red patch on the inner surface of the right leg over the calf, with a scalloped edge. In the scalloped edge of this plaque there were four punched-out ulcers, typical in appearance of an ulcerating gumma, but the Wassermann reaction was negative and the lesion did not respond to antisyphilitic treatment, so he had presented the patient as Bazin's disease. The histologic findings were those of Bazin's disease. There was certainly a remarkable resemblance to ulcerating gumma.

DISCUSSION

DR. HOWARD FOX said he never would have thought the case to be one of Bazin's disease when it was first shown. It certainly presented a clinical picture of a nodular syphilid with four or five ulcerated nodules in a semicircle.

DR. OCHS said this case simulated very much a case he presented four or five years ago, that of a young girl, 8 years old. The lesion was thought to be a sarcoid, but microscopically it proved to be a case of Bazin's disease. Dr. Wise confirmed it also microscopically. The speaker also presented another case of Bazin's disease before the Society, that of a young woman who had been previously shown and in whom the diagnosis of Bazin's disease was not at that time accepted, but was diagnosed as heredo-syphilis, but on the second presentation the diagnosis of Bazin's disease was confirmed. Here the lesions were also grouped in the same way on the legs as in the case presented by Dr. MacKee.

DR. HOWARD FOX asked Dr. MacKee's opinion regarding the comparative merits of tuberculin and roentgen ray in Bazin's disease, as he had treated the disease by both methods.

DR. MACKEE said that the twelve cases of Bazin's disease, treated with tuberculin, that he had reported, required six to ten months to get well and all recovered in that time. With the roentgen ray, with deep therapy, they would heal sometimes in one treatment, which meant one to three months instead of six to ten months.

DR. SATENSTEIN asked the exhibitor whether he was curing the pathologic process or removing the case. Dr. MacKee had said that vaccine therapy required from eight to twelve months; the speaker said that Bazin's disease would clear up in that time without any treatment.

DR. MACKEE said he had followed only three out of his twelve cases and they never relapsed. The cases treated by the roentgen ray had not been under long enough observation to tell much about the possibility of recurrence. Of course the roentgen ray did not kill the tubercle bacillus. It seemed to act mostly in preventing cellular over-activity, biologic and physiologic. Schultz had treated cases for several years and while he did not say anything about relapses, it was considered in his clinic as the best treatment for Bazin's disease, so he must have seen very few relapses.

TUBERCULOSIS VERRUCOSA CUTIS. Presented by Drs. HOWARD FOX AND OCHS.

The patient, I. T., was a married woman, aged 62, born in Norway. The disease had first appeared on the wrist, nearly two years ago, following a slight lacerated wound. It began as a "red lump" on the wrist and gradually spread to the present size, the smaller lesions appearing later. On the back of the right wrist there was a patch $2\frac{1}{2}$ by $2\frac{1}{4}$ inches, elevated to one-quarter inch. It was dull red, sharply bordered and fungating. There were also two smaller areas, one on the knuckle of the first finger, a narrow infiltrated patch an inch in length and another smaller patch on the back of the first phalanx of the little finger. There were also a few scattered pustules elsewhere on the back of the hand. The patient appeared to be in good health. She was being treated by the high frequency cauterization.

TUBERCULOSIS VERRUCOSA CUTIS. Presented by Drs. HOWARD FOX AND OCHS.

The patient, Cornelius C., aged 32, was born in the United States, a driver by occupation. The eruption began seven years ago, without apparent cause, on the skin over the first metacarpo-phalangeal joint. He presented warty and crusted lesions on the back of the hand, on the first metacarpal bone and first phalanges of index and middle fingers of the right hand. He had previously been treated by salves, curettage and the roentgen ray by other physicians. He was now being treated by radium.

DISCUSSION

DR. SATENSTEIN asked what Dr. Fox was going to do for these cases, whether he was going to subject the lesions to the roentgen ray or destroy them.

DR. HOWARD FOX said he had begun to treat one of the cases with the high frequency cauterization, and the other under radium and that he would compare the two methods.

TUBERCULOSIS VERRUCOSA CUTIS. Presented by Dr. BECHET.

The parents of the patient, a boy, aged 10, from the service of Dr. Kingsbury, stated that six years previously, ulcerative lesions developed on the right leg; since then he had never been free of active lesions. The family history was negative as to the presence of tuberculosis. The child had three brothers and six sisters, free from either cutaneous or visceral tuberculosis. He presented for examination, on the right leg, several large, irregular, serpiginous areas, which were markedly infiltrated and elevated, and covered here and there with a warty overgrowth; this overgrowth had been considerably diminished by carbon dioxide snow applications. Adjacent to the patches were two or three reddened, infiltrated nodules.

DISCUSSION

DR. PISKO said he would call this case scrofuloderma.

DR. MOUNT said he failed to see how some of the lesions in this case could be called scrofuloderma, as this term was used to signify an ulcerative condition of the skin secondary to an underlying tuberculosis of the lymphatic glands.

DR. SATENSTEIN said he agreed with Dr. Mount that scrofuloderma meant a breaking down of the glands with secondary involvement of the skin.

DR. WISE said he understood scrofuloderma to designate a tuberculous skin disease, the result of the breaking down of tuberculous glands, leading to direct infection of the overlying skin.

DR. BECHET said he had always considered the term scrofuloderma as a designation of the sinus formations following, or accompanying degenerating

tuberculous lymphatic glands. Such a condition did not of course exist in the case under discussion. The patient had had carbon dioxid snow applied, which partly removed the verrucous growth on the lesions.

CASE FOR DIAGNOSIS. Presented by Drs. HOWARD FOX AND OCHS.

The patient was a woman, aged 60, who presented a sharply bordered, pale reddish infiltration of the chin about $1\frac{1}{2}$ inches in diameter. This had existed for the past five months. There was no evidence of scratching, no scaling and no vesiculation. The Wassermann was negative.

DISCUSSION

DR. SATENSTEIN suggested the early stage of myxedema, because the entire face, forehead and cheeks were in the same condition, namely, slightly infiltrated, just like the chin.

DR. HOWARD FOX said that patches of rosacea were as a rule rather ill defined and not sharply bordered infiltrations as in this case. The possibility of a gummous syphilid was thought of, although the Wassermann was negative.

XANTHOMA. Presented by DR. OULMANN.

The patient was a male adult who for a number of years had had diabetes and nephritic trouble. He showed a number of xanthoma lesions on the knees, elbows and soles of the feet.

ICHTHYOSIS. Presented by DR. OCHS.

The patient was a boy, aged 18, who showed a generalized ichthyosis. The patient's mother stated the lesions were only noticed after he was three months old. This was an absolutely typical case. The only remarks to be made were that it was generalized and had the typical fish scales prominently showing on both legs. No other member of his family was so afflicted. The flexor surfaces of the elbows and under the axillae were free, but otherwise his whole body was involved.

DISCUSSION

DR. MACKEE said this was one of the most magnificent cases of ichthyosis he had ever seen. One interesting feature was the complete freedom of the flexures, with one exception, the axillae.

DR. WEISS said he would like to know if there was any explanation of the popliteal regions and elbows not showing an ichthyosis.

DR. PISKO said something like this condition was seen in the prurigo of Hebra, in which the popliteal and cubital spaces were always free.

DR. SATENSTEIN said the interesting point in this case was the time of the appearance of the lesions. The mother of the patient said the condition began when he was 3 years old. He asked how would one classify this? An anomaly of function or a nevus?

KAPOSI'S SARCOMA. Presented by DR. OULMANN.

The patient was a male adult, who had been seen at the Vanderbilt Clinic and showed lesions on both legs. It looked like scleroderma, but the case was clinically as well as otherwise a case of Kaposi's sarcoma. The man developed the condition in his thirty-third year and the speaker said he had never seen an earlier case. The patient had had a number of roentgen-ray treatments.

DISCUSSION

DR. HOWARD FOX thought that in this case the clinical diagnosis agreed with the histologic. He considered it scleroderma and not Kaposi's disease. There were no nodules to be seen and, furthermore, the patient was rather young to suffer from Kaposi's sarcoma.

DR. SATENSTEIN said that in the literature there were case reports of cutaneous fibroid nodules accompanying atrophy of the skin, which atrophy had been preceded by an infiltration, very similar to that in the case presented. Instead of Kaposi's sarcoma, he considered the case one of scleroderma with fibroid nodules. Microscopically there was nothing but a sclerosis of the connective tissue in the nodules presented as sarcoma nodules. There was absolutely nothing suggestive of Kaposi's sarcoma in any of the sections examined by him.

DR. MOUNT agreed with Dr. Satenstein and could not bring himself to consider this case as one of Kaposi's disease.

DR. GOTTHEIL said he thought this a case of Kaposi's sarcoma and that the condition of the leg was common. He had had occasion to see an unusual number of these cases and in almost all of them the pseudosclerodermatous condition was presented. There were deep-seated nodules which would cause a sclerodermatous condition. He said if one of these nodules were excised they would find the cell accumulation characteristic of these cases.

DR. WISE said he had seen this case two or three months previously and at that time the patient presented lesions which were typical of sarcoma of Kaposi. When he saw the case there were deep, edematous, violaceous swellings on the backs of the hands, such as were seen only in Kaposi's sarcoma. The nodules on other parts of his body were also violaceous. He thought it a typical case of Kaposi's sarcoma and that the scleroderma of the lower extremities was a secondary manifestation, not uncommonly encountered in this affection.

DR. OULMANN said the picture had changed very much under roentgen-ray treatment, but that in some of the small lesions the sarcoma nodules could still be seen.

MALIGNANT SYPHILIS. Presented by DR. PAROUNAGIAN.

The patient, D. M., a man, aged 51, born in Russia, was a stableman by occupation. He had a generalized eruption of five months' duration. He denied having had a chancre, though a large scar on the dorsum of the penis was present. The lesions were polymorphic in character, rupial, nodular, papular, pustular, corymbiform, circinate, etc. The scalp, face, neck and the extremities were involved with a few scattered lesions on the trunk. The throat was ulcerated, with a large mucous patch on the lip. The Wassermann reaction was + + + +.

DISCUSSION

DR. SATENSTEIN suggested, instead of salvarsan, that the patient at first be fed and put out into the open air. That would do him more good than salvarsan and that later the patient would probably respond better to the anti-syphilitic therapy.

DR. MACKEE said he thought that this was a precocious as well as malignant case. The eruption was destructive, widespread, bilateral and to a large extent symmetrical, and represented the type seen in individuals who had heart or kidney diseases or cachexia or who were in very poor health.

DR. HOWARD FOX agreed with what his father had always taught regarding hygienic treatment of syphilis. This was a case, however, with mucous lesions on the lip that constituted a menace to society. To attempt to put this patient in good physical condition and defer active antisymphilitic treatment, would, in this case, be most improper. He thought that no time should be lost in giving the patient salvarsan.

DR. PAROUNAGIAN, in closing, said he was not in favor of the suggestion made as to the "tonic treatment" and "building up and feeding him," as the patient was swarming with spirochetes, he was a public menace, therefore, he should receive vigorous salvarsan and mercury treatment.

CARCINOMA SERPIGINOSUM. Presented by DR. OULMANN.

The patient was a male adult who had previously been presented before the Society, at which time a diagnosis of carcinoma serpiginosum was made. The lesions were on the scalp, at the back of the left ear, which was healing up, but the lesion was progressing down on the neck and new ones appeared there. The condition had been of six years' duration.

DISCUSSION

DR. SATENSTEIN said they had done a biopsy and looked for carcinoma, but did not find it. They found nothing but a chronic dermatitis.

DR. OULMANN said when he presented the patient for the first time he had rather deep ulceration and the masses were infiltrated. He had had no roentgen-ray treatment at that time. The case was healing in one place but progressing in another. The histologic picture did not show any kind of infiltration, nor any change of the epithelium of any extent and only showed a new formation of small blood vessels. There was a slight edematous condition without infiltration and there were deep scars. The speaker did not know what diagnosis to make, but it certainly was no radiodermatitis.

NEVUS ANEMICUS. Presented by DR. MACKEE.

The patient, S. P., a man, aged 19, from Dr. Fordyce's clinic, presented on the back a large, irregular, whitish patch with here and there pale, guttate macules, which were fairly well marked. There was no hyperpigmentation around the patches. On the front of the chest he had a very distinct whitish area and in the sternal region a white mottling. There was no infiltration. The skin appeared perfectly normal, excepting that it was lighter in color than the surrounding skin. In regard to the duration, the history was uncertain, but the mother had told the speaker that the white area on the right side of the sternum had been present practically since birth. He knew nothing about the duration of the other patches; the boy had only noticed them a month ago, but they may have been there some length of time. A biopsy had not helped in establishing a diagnosis and only revealed a normal epidermis with a little edema of the connective tissue. He presented it as a case of nevus anemicus.

DISCUSSION

DR. HOWARD FOX said the lesions on the back were rather suggestive of vitiligo.

DR. MACKEE, in reply to Dr. Gottheil, said that one could limit the term nevus to growths in which were found nevus cells, as, for instance, the pigmented mole. This was the usual pathologic classification. The speaker was in favor of a more liberal conception of the subject and he was inclined to place in the group of nevus any lesion that was due to a congenital anomaly of development. Regarding the possibility of white lesions constituting nevi, the speaker recalled a case that he had photographed two years ago. There was a pure white, linear lesion, in the shape of a band about 3 inches wide, extending from the vertex over the neck and shoulder and down the arm to the hand. The hair in the affected area was white. The lesion was present at birth. Such a condition was a congenital anomaly of pigmentation or an anomaly of development producing a different refraction index of the skin and the speaker would regard such a lesion as a nevus.

DR. GOTTHEIL asked, as some microscopic sections had been examined, if the whiteness was due to obliteration of the blood vessels or diminution of pigment.

DR. SATENSTEIN said even in well marked cases of leukoderma there was no change in the pigmentation in the so-called white spots. The only change was at the border, where there had been increased pigmentation, but the white

spots themselves had a normal amount of pigment, and they very seldom saw a total absence of pigment. The speaker said they would see no difference, only when compared with the pigmented skin.

DR. WISE said he had read up the subject of *nevus anemicus* only the day previously. The blanching of the skin was not due to absence of pigment, nor to an obliteration of the blood vessels, but rather to a partial narrowing of the blood vessels—a shrinking, but no actual obliteration.

CHRONIC ECZEMA. Presented by DR. WEISS.

The patient was a male adult who had had this dermatosis seventeen years. It disappeared for four years and for the past ten years it reappeared again. The lesion started as a small, eczematous patch on the left foot, above the ankle and spread centrifugally, with thickening of the skin, due to scratching. It was itching intensely and the speaker made a diagnosis of parasitic eczema, there being present scratch marks, crusting and pachydermia. Some held it to be *lichen chronicus simplex* in patches. He regarded the case as chronic eczema, or as it was sometimes called in view of its rounded configuration, a parasitic eczema.

DISCUSSION

DR. OULMANN said he regarded the case as one of mycotic eczema.

DR. PAROUNAGIAN diagnosed the case *lichen simplex chronicus* as such cases were called by Dr. Pollitzer. Their behavior was different from the so-called chronic eczema. The lesions were usually seen on the lower extremities, consisting of one or more patches, sharply margined, elevated, shining smooth surface, purplish in color, leathery feeling to the touch and extremely itchy, with seldom exudation present. Often they painted these patches with liquor potassae with good results, which would produce a very severe reaction in eczema.

DR. MACKEE said that he understood Vidal's *lichen chronicus circumscriptus* to consist of a circumscribed area of lichenification, associated with considerable itching. Dr. Weiss' case impressed him as being one of chronic eczema.

DR. WEISS said that under *lichen simplex chronicus* he understood a neuroderma, with papules, which in the beginning were more to be felt than seen, coupled with intense itching. Soon livid papules developed, on the summits of which a little dried blood crust showed, caused by scratching the lesions. They appeared with predilection on the chest and flexor and inner surfaces of the arms and legs. In this case there was a large patch of seventeen years' duration, with crusting, itching and thickening, and although called by a misnomer, he thought it a parasitic eczema, the parasite of which had not yet been found.

Correspondence

CASE FOR DIAGNOSIS

To the Editor:—In the hope that some of the readers of THE JOURNAL might be able to enlighten me about a case under my observation, I submit the history of the patient, as follows:

E. S. M., a man, aged 35, a bottler by occupation, is employed in a Coca-Cola manufacturing plant. He came under my observation on Sept. 9, 1917. He had had no illnesses since childhood; the Wassermann reaction was negative. He complained of spasms of violent, uncontrollable itching and burning of the face, chiefly on the left side; the seizures came on every few minutes, day and night, for the past three days. Antedating the disorder, he had been out for a motor ride, felt chilly, and had fainted. Four days later, the itching set in. When the attacks came on, the patient would grasp a towel, the bed-clothes, or with his bare hands would briskly rub—not scratch—the face for a few minutes, when the storm would pass. Any manipulation of the affected parts would induce an attack. He was afraid to speak or swallow as the consequent muscular movements would precipitate a seizure.

The face was erythematous, with small areas of abraded skin. The temperature was 100 F., and the pulse, 80. Examination of the mouth revealed one decayed tooth, which was apparently causing no trouble. No wisdom teeth were in evidence and since they had never been extracted, it was deemed wise to make a roentgenogram, which revealed a congenital absence of these structures. The patient's condition was pitiful from mental unrest and loss of sleep. Sedatives gave a measure of relief. Free salivation supervened; at times the saliva would run from the mouth. Twitching of the facial muscles and of the sterno-mastoid muscles were noticed. Transient delirium set in.

An eruption, herpetic in character, appeared along the course of the intercostal nerves of the left side and on the anterior aspect of the right leg below the knee, following the nerve distribution. Itching was manifest in these areas, but was not so violent in character. There was no pain. Examination of the nose revealed no reflex cause of the malady.

At the expiration of three weeks he was discharged from the hospital, apparently well on the road to recovery, and four days later he went back to work.

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AN ERUPTION OF ACUMINATE PAPULES IN ACUTE LICHEN PLANUS *

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AND

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SAN FRANCISCO

Lichen planus is a symptomatic disease, that is to say, it is a disease in which the cause is unknown. It is only recognized by the symptoms which a hypothetic cause evokes. Under such circumstances narrowness of definition as to what constitutes admissible symptoms is of great value, as otherwise the definiteness of the clinical picture tends to become blurred. Lichen planus is preëminently a papular disease, and the typical lichen papule is delightfully characteristic. It is small pin-head sized, with an angular base and a flattened top. There is frequently on the top a minute depression — an umbilication. The papule gives an impression of substantiality, which it really possesses, as it is composed of a tightly packed, well circumscribed infiltration of small round cells in the papillary layer of the skin. The top of the papule is smooth or is covered by a delicate scale, and in oblique light it glitters like glass or like smooth wax. The red color of the papules as a group is also peculiar, as it frequently has a violet tint. Frequently they are aggregated into groups, and very frequently indeed they are itchy. That in almost all cases the papules of lichen planus are really planus or flat topped there is no question. The question is, can some of the papules be acuminate? Or, at one stage in some cases may all of the papules be acuminate?

Darier says that in some cases of acute or subacute lichen planus a few acuminate papules will be found, and Jadassohn¹ remarks, in an

* Received for publication September, 1917.

1. *Dermatologie* von J. Darier, 1913, pp. 91 and 92. Translated by Dr. Karl Z. Zwick and annotated by Prof. Dr. J. Jadassohn.

annotation, that the acuminate papules are due to the particular lesion having a follicular localization. In the present instance all of the papules, irrespective of any follicular localization, were at first acuminate with the exception of those on the back of the hands. They later changed from the acuminate to the typical planus type.

It appears that T. C. Fox, Crocker and others have described a form of lichen planus occurring in children in which the papules are at first acuminate, and later become flattened. It is said to itch severely. The eruption comes out suddenly, and may be made to disappear quickly under soothing applications.²

This description fits more nearly the state of affairs in the present case. The patient, however, was not a child, but an adult, and the eruption evolved more slowly than the above description would indicate, as it occupied the usual time, about five months, for an acute lichen planus eruption to disappear.

REPORT OF CASE

Oct. 12, 1916, a short, stout man, aged 50, called on us on account of an eruption which he had first noticed a few days previously. There were a vast number of papules on the back across the shoulders. These he said were at first not red, but became reddened later, and when we first saw him, were slightly so. The papules were small, even in size, prominent, acuminate, discrete and they were arranged in a distinct but not very regular network. The papules were not desquamative and although they glittered in oblique light, the glitter was not the characteristic waxy or vitreous glitter of lichen planus. There were some red acuminate papules on the front of the wrists, and there were some flattened but not absolutely characteristic papules on the backs of the hands. These resembled the flattened, red, seborrheic patches that not infrequently arise in this region. Granting them to be seborrheic patches they were unusually numerous. There were some papules also in a brown field on the back of the neck against which the base of the collar button rested. At each side of the base of the neck there was a brown desquamating streak running antero-posteriorly, in which there were some acuminate papules. There was no itching. There was no eruption in the scalp, on the face, on the lower extremities or on the penis. There was a white thickened patch, about 2 by 4 mm., on the left side of the tongue. The cheek pouches were clear of trouble.

Our suspicions of the eruption being lichen were aroused by the thickened lingual patch, by the brown, desquamating streaks at the base of the neck, and very especially by the reticulated arrangement of the papules on the back across the shoulders.

In a week the patient called again, and the eruption was much better, but was more typical of lichen planus. The isolation of each papule, their retiform arrangement, their glitter and their substantiality all reminded one of a lichen eruption. In one instance a papule was umbilicated, and many of them had a little desquamation at the apex.

2. Hardaway and Grindon: *Cutaneous Therapeutics*. Philadelphia, Lea & Febiger, 1907, p. 167.

The eruption of the backs of the hands had almost entirely cleared off, showing that they were not seborrheic patches, which evolve with extreme slowness. The condition in the mouth was most interesting. The white patch on the left side of the tongue had disappeared, but eruptions had appeared in the cheek pouches. In the left cheek pouch there was an area with characteristic lacework and distinct papules, and there was a white plaque in the right cheek pouch.

October 27, fifteen days after we first saw the patient, there was an irregular group of papules on the left side of the tongue, and what appeared to be two small papules on the right border of the tongue. The papulation and lacework in both cheek pouches was now beautifully distinctive of lichen planus, and there were some lichen planus papules on the glans penis. There were some very small, typical lichen papules on the abdomen, especially in the flanks. In the axillae there were some large, dull red, prominent rounded papules, about 3 mm. in diameter, which itched a little, and this was the only situation in which the patient had any irritation at all.

The few remaining papules on the backs of his hands were flattening out, and when looked at directly, appeared like a simple redness. By reflected light, however, the glittering facets could be seen.

Subsequent to this the eruption flattened out into typical lichen papules and finally disappeared, leaving the usual brown stains. In January, a raised ring with a brown center persisted on the back, and there was a little opalescence of the mucous membrane just inside the right angle of the mouth. In April, that is, about five months from our first observation of the patient, almost all evidence of the eruption had disappeared.

It may be that acute lichen planus occurs as an acuminate papular eruption more frequently than is supposed. Acute lichen planus is not frequent and most of the cases in their early stages would naturally be seen by the general practitioner. It so happens that the status of this disease in the profession is a peculiar one, as the dermatologists are the only physicians who take the slightest interest in its morphology. By the time such a case reaches the specialist the acuminate papules may have changed into planus.

There was no question in this case of the presence of pityriasis rubra pilaris with which lichen planus has sometimes been confused, nor of lichen pilaris which is more a deformity than a disease. It is because of the incident confusion that the term lichen plano-pilaris is particularly condemnable.

ULCERATING GRANULOMA OF THE PUDENDA *

REPORT OF TWO CASES

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Ulcerating granuloma of the pudenda, also known under the names of granuloma venereum, groin ulceration, granuloma inguinale tropicum, etc., is a chronic, infective disease produced by a micro-organism described by Donovan under the name of *Calimato bacterium granulomatis*.

This rare condition, usually found in dark-skinned races, was first described as a clinical entity by Conyers and Daniels, who placed it in a common group with the so-called tropical ulcers, but its true nature was not disclosed before the investigations of Donovan and the South American dermatologists, Souza of Brazil among them.

The malady begins insidiously on the genitalia (scrotum, penis, or vulva) as a small, moist papule which after some time breaks down, forming a small ulceration which, growing excentrically, invades and destroys the surrounding parts; sometimes a small pinhead to pea-sized prominence follows the primary manifestation, thus constituting the papillomatous type of the disease; sometimes both papillomas and ulceration are combined, forming the mixed type.

Cases have been recorded of extragenital lesions, but they seem to be very uncommon. The disease has no relation whatever to syphilis, chancroid or blennorrhagia. The mode of contagion appears to be by sexual intercourse, although several cases have occurred in children under puberty. Uncleanliness is a great factor in contracting the disease.

I have recently had occasion to study two cases of this disease.

REPORT OF CASES

CASE 1.—*History*.—Maria C., a mulatto woman from Santa Clara province, Cuba, aged 24, married, was admitted to the Mercedes Hospital, Nov. 20, 1914.

Her past history is negative; both parents died from "fever" during the Cuban independence war; she has one brother, living and healthy; she has had no children, and her husband is a healthy and strong young negro. No history of syphilis could be elicited; the patient declares she had malaria and measles during her childhood, but no other disease afterward. The present ailment began five years ago, as a small sore on the right labium marjorum, which in the course of several months gave place to an ulceration about the size of a dime;

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this increased slowly in all directions and invaded the groin of that side and part of the gluteal region, wherefrom it spread to the perineum and labium and groin of the other side.



Ulcerating granuloma in a young mulatto woman. The ulcero-papillomatous process in spreading has destroyed both labia majora and minora with the exception of a small area on the left. The ulcerating surface is raised, sharply defined and hard.

Examination.—At the time of examination the following condition was observed: an extensive, ulceropapillomatous surface affecting the genitals; both labia majora and minora were missing, excepting a small area of the left side as shown in the accompanying illustration; the vulva was represented by an irregular orifice, and the anus was surrounded by a papillomatous growth; this surface was covered by thick, yellowish pus of peculiar offensive odor.

The edges of the ulceration were raised, sharply defined, rather irregular and hard. The neighboring glands were somewhat enlarged. The patient complained of lancinating pains, especially at night. The Wassermann test was negative. The urinalysis revealed no abnormality.

Histopathology.—Specimens for microscopic study were taken from the pus, and a small papillomatous tumor was excised for examination. At the time of this observation I did not know of the existence of the *Calimotobacterium granulomatis*, and therefore I could only detect in the secretion numerous cocci and bacilli without anything especially characteristic; no spirilla or treponemes were found. The pathologic changes were those of chronic inflammation: round-cell proliferation, papillary elongation, and dilatation of the vessels; numerous plasma-cells could be seen around the latter.

TREATMENT

This patient was given three injections of salvarsan and a dressing saturated with a solution of potassium permanganate in the proportion of 1:1,000 applied locally. After a month's treatment the local condition had not changed, although the lesions were cleaner and the discharge was not so offensive. Then I began to treat the patient according to the method of the South American dermatologists, namely, 5 c.c. of a solution of potassium and antimonium tartrate (1 per cent.) were injected intravenously every other day. The first treatment was followed by slight malaise and nausea, but the other injections were devoid of any untoward consequences. Improvement was noted after the fourth treatment, when the ulcerated part at the groins began to heal, forming a white, raised and retracted scar. Cicatrization then took place slowly, and after five months the patient was almost cured; only two areas remained active, one around the anus and the other around the vaginal orifice. The patient left the hospital and she passed from further observation.

CASE 2.—History.—Manuel P., white, aged 25, by occupation a teamster, born in Havana, entered the Mercedes Hospital, March 6, 1917.

His father died of an unknown disease; the mother is still living and is healthy; there are eight healthy brothers; one sister died of tuberculosis of the lungs. The patient never had syphilis nor blennorrhagia; seven months ago he had two chancroids which disappeared under local treatment. His digestive, respiratory, circulatory and nervous systems were normal; the Wassermann test was negative. The actual disease began ten years ago, when two small nodules appeared on the lower part of the scrotum, remaining for several months; then gradually they became exulcerated, and several small, irregular prominences of papillomatous aspect, arose in situ. The disease affected the rest of the scrotum progressively, later invading the penis in all its length.

Examination.—There were at the time of examination between fifty and sixty papillomas of about the size of a pea to a filbert, secreting pus of offensive odor, mixed with blood. The patient complained of itching and burning sensations.

MICROSCOPIC FINDINGS

In the specimen I could detect the specific germ; it is a short, capsulated bacillus, disposed in long chains; it is easily distinguished from the other bacteria on account of its wide, clear capsule; the best stain

is Giemsa. I could not obtain a pure culture of this micro-organism, but it was still present in agar mediums, together with many other bacteria. The patient refused to give the writer permission to obtain a specimen for a biopsy or a photograph of the lesion.

TREATMENT

The patient was given one intravenous injection of 5 c.c. of a 1 per cent. solution of potassium and antimonium tartrate and left the hospital refusing further treatment.

Although these are the first two cases recorded in our country, I believe that the disease is not uncommon; I am told by physicians practicing in country districts that they have observed similar cases, especially in the eastern part of the island.

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A CASE OF SCLERODERMA DIFFUSA IN A GIRL, NINE YEARS OF AGE*

WITH A REVIEW OF THE LITERATURE

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Sclerodermatous conditions are classically divided into three main groups: (1) the generalized or diffuse; (2) the localized or morphea type, and (3) sclerodactylia. A special subdivision of localized scleroderma is the peculiar lichenoid form, recently studied by Wise and Rosen.¹ Both first mentioned divisions are recognized to pass through three stages in their evolution, and the textbooks describe the edematous, the infiltrated and the atrophic stages. The age periods have given rise to further divisions, and we have sclerema neonatorum (probably not a sclerodermatous condition at all) and the diffuse scleroderma of children and of adults. The onset determines whether the qualifying adjective — acute — should be appended.

The infrequency with which the acute form of diffuse scleroderma is encountered in children and the great difficulty in determining tangible etiologic factors in the causation of the malady, are deemed of sufficient interest to justify the writer in recording the following case, observed in the service of Dr. Longcope at the Presbyterian Hospital.

REPORT OF CASE

The patient is a white girl, 9 years old. Her family history has little direct bearing on the case. The parents are well; there are three sisters, living and healthy. There was one miscarriage among her mother's pregnancies.

Personal History.—She is a school girl, a good student, lives at home in good sanitary surroundings, and takes plenty of exercise. In early infancy, at the age of 7 months, the child was operated on for an intestinal trouble. The symptoms were vomiting and cramps; the diagnosis is not known. At 6½ years, she had measles and made a good recovery. Each winter the child has had frequent, transient sore throat. There have been no other illnesses.

Present Illness.—Seven weeks prior to admission, the patient had an attack of her winter sore throat. There was slight fever, but no chills, vomiting, headache or pains in the extremities; the child was given a mouth wash, and the back of her neck was painted with iodine. She was in bed four days. There were no cutaneous or cardiac symptoms during the illness, which lasted ten days.

Three weeks prior to admission, the mother noticed that the girl's jaws did not open as far as usual, and several days after, while combing the child's

* Received for publication Oct. 10, 1917.

1. Wise and Rosen: *JOUR. CUTAN. DIS.*, February, 1917.

hair she observed that the head did not extend as much as normally. The local physician was consulted and found stiffness of the skin of the neck, posteriorly and anteriorly, and of the scalp, forehead, cheeks, forearms and thighs. He prescribed hot oil rubs for the skin, and rest in bed, because her heart was enlarged and beating too fast. The child always felt well.

Physical Examination.—The general appearance gives one the impression of dulness, which her manifest interest and intelligent conversation belie. The face looks puffed and doughy. The head is symmetrical. There is no mastoid tenderness nor discharge from the ears or nose. The eyes are half closed by the immobility of the thickened lids. The conjunctivae are clear, the pupils central, equal and react to light and accommodation. The mouth can be only partly opened; the lips are soft and moist, and the tongue is hard and cannot be protruded. The pillars are only slightly stiff; the soft palate is free, and the tonsils are of the buried type with nothing abnormal about them. The teeth are in good condition.

The lungs are clear throughout. Expansion of the chest is equal and fair.

The heart presents a diffuse apex beat, visible in the fourth and fifth space, 7 or 8 cm. to the left of the midline. There is dulness on percussion in the second space, 2 cm.; third space, 5 cm.; fourth space, 9.5 cm.; fifth space, 8 cm. The right border is at about the right sternal margin. The first sound at the apex is loud and of good muscular quality; second sound is also loud. Action is rapid and overactive. At the base, the aortic second sound is greater than the pulmonic second and somewhat accentuated. There are no murmurs. The pulses are equal, regular, rapid, full, soft, and of moderate force. The abdomen is soft, there is no tenderness, no rigidity, no masses are felt, and there is no free fluid. Liver dulness is present in the fourth space and flatness in the sixth space; the lower edge of the liver is not palpable. The spleen and kidneys are not felt. The reflexes are all normal.

On admission, the pulse was 120. It ranged during the first week between 140 and 110, falling only on one occasion to 92. During the second and third week of her stay in the hospital, the variations were only 5 above or below a mean pulse rate of 95, with 110 as high and 80 as the low mark.

The temperature curve has never followed the pulse rate, seldom falling below or going above 99 F.

The respirations have varied between 24 and 32.

The weight remained the same, 52 pounds.

The blood pressure was difficult to determine accurately because of the hardness of the skin. On one occasion the systolic pressure was recorded as 110, diastolic, 60.

Blood.—Red blood cells, 4,629,000; hemoglobin, 95 per cent. (Sahli); white blood cells, 9,000; polymorphonuclears, 43; lymphocytes, 53; large mononuclears, 1; transitionals, 2; basophil, 1; smear, normal.

The blood Wassermann on the child gave a doubtful reaction to the alcoholic antigen, and a ++ with the cholesterin reinforced. A blood Wassermann on the mother was negative with both antigens. The child showed no stigmata of hereditary syphilis.

Urinalysis.—The urine showed a very faint trace of albumin, occasional hyaline casts and rare granular casts on two examinations. There was no reduction of Fehling's solution.

Skin.—The skin of the forehead, scalp, back of the neck and shoulders, as low as the spines of the scapulae, the cheeks, the chin and the neck as far down as the clavicles, is most markedly affected. The skin of the upper arms and lower legs are less affected; the forearms, thighs, back, chest and abdomen still less. The ears, alae nasi, the hands and feet and a narrow area around the mouth are least changed.

The hair of the scalp is fairly profuse and well distributed. The eyelids droop, appear stiff and give the child an inattentive and stupid expression.

There are no wrinkles. The face is freckled. The extensor surfaces of the forearms and lower legs have a sparse growth of lanugo hairs; both forearms present several small, spider nevi. The affected portions of skin are erythematous; the skin over the thyroid is most reddened. The erythema disappears on pressure but rapidly returns. The skin is glossy. There is no evidence of perspiration except in the axillae and palms.

The skin is warm and dry. It feels thickened, but inelastic, and has a boardlike hardness. It is not possible to pinch up any skin between the thumb and forefinger. There is no pitting on pressure.

The forehead cannot be wrinkled; nor can the lower lids be retracted downward. The mouth can be opened only partly—the greatest distance between the upper and lower incisors is 2 cm. The child is unable to whistle, and smiling is a conscious effort with no response on the part of the facial expression. Active and passive movements of the head, extension, flexion, lateral flexion and rotation are limited. Extension at the elbows is impossible beyond 175 degrees. The movement of no other joint is embarrassed. The tongue can be protruded only 1 cm. beyond the lips. It is hard, nonflexible and seems contracted.

There is a laparotomy scar in the midline for 3 inches above the umbilicus. On the right buttock is a pigmented, nonelevated nevus, about 4 by 10 cm.

CLINICAL COURSE AND TREATMENT

During her stay in the hospital the child was cheerful and happy. She spent the day in bed, playing with her doll, learning to knit, writing to her friends, and cutting out paper clothes. On being transferred to another ward, she cried for one afternoon because of her strange surroundings. Each day she would report that some part of her body felt a little softer, that she could open her mouth a little wider, or straighten out her elbow to a greater extent.

Oil rubs were given during the second and third weeks in the hospital by a professional masseuse, with only transient, if any, improvement. Thyroid extract in daily, half-grain doses, was also administered for several weeks. There was no effect either on the heart rate or on the cutaneous condition. After a month in the hospital the child was discharged unimproved, but was advised to continue the oil rubs and the thyroid. Although given a return date for further observation, the mother had not brought the child to the dispensary, until visited by a social service nurse.

Five months after her entrance into the hospital she was visited at her home. The child's general appearance had changed considerably. She looked bright, and recognized at once the caller she had not seen for four months. Her face was apparently much thinner, but there was no swelling present. The skin of the scalp retained its hardness and immobility, but the eyelids and cheeks were soft and pliable. The tongue was protruded between lips that opened widely. No tremor was present.

The heart retained its borders but the rate was reduced to 80. The rhythm was regular, and the force moderate. The lungs and abdomen remained as before.

Except for the scalp, the hardness of the skin was gone. Here it was still impossible to pinch a part up between the fingers, or to slide it on the skull. The back of the neck and the thighs still gave an increased resistance to pressure, but was not thickened nor hard. The erythema formerly so marked was not present. The elbows were readily extended to the normal limit. The patient's weight remained at 52 pounds.

It is noteworthy that neither the primary stage of edema nor the final stage of atrophy have been observed in this child.

REVIEW OF THE LITERATURE

A hasty survey of the literature has revealed only three recent cases of diffuse scleroderma in children.

CASE 1.—(Lewin and Heller, Case 294). *RADCLIFFE CROCKER* (*Brit. Med. Jour.*, 1878). Summarized in Crocker's *Diseases of the Skin*, 1888, p. 314.

"In a child of 12 who came under my care, through the kindness of my colleague, Dr. Eustace Smith, the whole body surface was involved except the palms and soles, within a fortnight, and there was endocarditis and pericarditis; yet, within three weeks some diminution of the induration set in, though it was twelve months before the child was quite well. Many run a course much slower than this."

Crocker precedes this notation of an instance of diffuse scleroderma in a child, by the following remarks:

"Although the name *adulorum* has been appended in contradistinction to *sclerema infantum*, with which it has no connection, scleroderma frequently occurs in children and bears the same character among them, except that it tends to run a more acute course both in onset and termination, while the atrophic phase is less often developed."

From the literature of the subject, it is to be inferred that scleroderma occurs infrequently in children. This is especially true of the acute diffuse form, of which the subject of this report is an example.

The acute character of the affection in children is relative only; in adults it is more insidious and persistent. The stage of infiltration, however, is of longer duration in adults.

CASE 2.—*OSLER*, in his monograph on the use of thyroid in scleroderma, mentions a case of Marsh (*Med. News*, London, 66), of scleroderma which followed diphtheria in a child, aged 2 years. The condition was quite extensive. Dr. Marsh wrote, Dec. 29, 1897, that "the child has recovered completely and showed no trace of the disease."

Following the report, Osler raises the question whether the case was one of diffuse scleroderma or whether it was not one of acute sclerema of the same nature as sclerema neonatorum, following diphtheria. The whole process was very acute, extending from its inception to complete cure, over a period of only four months.

CASE 3.—*BRAYTON*, during a discussion by Dr. Ravogli on "Rare Forms of Scleroderma" (*Jour. Cutan. Dis.*, 1917, 35, p. 9), mentions the following case of acute diffuse scleroderma following tonsillar infection:

"Very notable was the case of a girl, 8 years old, suffering from tonsillar infection and three weeks' resulting fever. During this time the skin became so hardened from the scalp to the toes that it was impossible to pinch it up in any portion of the body. Her appetite was immense as she convalesced, eating four or five meals a day and active in playing about the hospital grounds.

After three months, resolution began and her condition is normal by the end of five or six months. The patient was found healthy four months after her recovery."

This case is for age, sex, possible causation, temperature, acuteness, extent and course, almost a replica of the child here reported.

Eighty-eight of the 505 cases gathered by Lewin and Heller in their monograph, "Die Sclerodermie," occurred in children from birth to 19 years, inclusive. The great majority were cases of circumscribed scleroderma. Of the diffuse scleroderma, other than of the new-born, but twelve were of the acute form. Cases of diffuse scleroderma with gradual and insidious course, are probably examples of the circumscribed form, presenting a coalescence of contiguous patches.

The earliest case report, according to Crocker, is the following:

CASE. 4.—(Lewin and Heller, 23). *CURZIO*: Diss. anatom. et pratiq. sur une maladie de la peau espece fort rare et fort singuliere, Paris, 1752, letter to Abbe Nollet, 1754, published by Gintroc (*Jour. d. méd. de Bordeaux*, 1874). The author describes a case in a girl, 17 years old, in whom the skin of the entire body was hard. In some places, as on the neck and forehead, the induration was especially marked. The tongue was very hard, and could not be protruded. Deglutition and speech were interfered with. The mouth and eyelids could not be opened widely. On each side of the linea alba was an indurated area 4 inches wide. The affection began at the neck. The temperature was low. The secretion of sweat almost nil. Other findings were negative.

CASE 5.—(Lewin and Heller, 189). *BARMANN*: Inaug. Diss., Berlin, 1825. The child, a boy, 6½ years old, had headache following a cold, loss of appetite, and pain and stiffness of the neck. The skin of the face, hands and legs was hard and cold. There was no perspiration. The skin of the body, except for the genitals, was swollen, yellowish white, fixed to the underlying parts, impossible to crease, and almost ice cold. There was marked sclerosis of the underlying parts. The palms and soles, and the under surface of the legs and abdomen were less hard. The author says a tuberculous diathesis and the "cold" infection were the cause of this chronic hardening of the tissues. Improvement followed treatment. The face and neck remained somewhat hardened.

CASE 6.—(Lewin and Heller, 28). *THIRIAL* (*Jour. de méd.*, 1845); from *Würlz. med. Ztschr.*, 2, p. 215. A girl, aged 15, had amenorrhea after washing clothes in cold water, and immediately afterward felt that her neck was stiff. Within a week the entire upper portion of her body was affected. The skin of the side of the neck, the nape of the neck and the back were so stiffened that it could not be impressed with finger pressure. All the normal folds were obliterated, and the skin was so incorporated with the underlying structures that the movements of the larynx and the eyelids were rendered difficult. The color of the skin was normal, but the neck was slightly erythematous. The sensation of the skin, and the sweat functions were normal.

CASE 7.—(Lewin and Heller, 34). *RILLIET* (*Rev. méd. chir.*, February, 1848). The patient was a girl, 9 years old. The illness began five days prior to the day on which she was first observed, with stiffness of the neck, sudden pains in the epigastrium, and palpitation of the heart. There was a painful area of the skin in the epigastric region which was hard, resistant, cold and without creases. The following day, there was hardening of the entire body. The muscles and joints were not affected; only the skin and cellular tissue. The induration lasted eight or ten days and then gradually faded. Little skin remained affected. The eyelids were free, but the tongue remained thickened. The sensation was normal; the respiration was increased, and there was acceleration of the pulse. Besides the skin sclerosis, there were ascites, hydro-pericarditis, and right-sided pleuritic exudation.

CASE 8.—(Lewin and Heller, 16). *GILLETTE* (*Arch. gén. de méd.*, 1854). In a healthy child, $8\frac{1}{2}$ years old, following a cold, the scleroderma began on the neck. There was rapid spread. The head, trunk and upper extremities soon presented skin that was definitely hard, and felt like gutta-percha. The hardened skin was immobile over the underlying structures. The face was motionless; the eyelids were half closed, and the nares were drawn together a little. The forearms were half flexed and the arms were abducted a little from the sides. One could not observe a fold in any affected portion, nor could one be produced. The face was most markedly affected. After two months, movements at the joints were easier. The cure became apparently complete, only the skin felt more resistant than normal. There was a mild sclerodactylia. The function of the skin was normal.

CASE 9.—(Lewin and Heller, 42). *KOEHLER*: Zur Lehre von der sogenannten einfacher Hautverhärtung (*Württemb. Cor.-Bl.*, 32, 1862). From *Schmidt's Jahrb.*, vol. 118. A girl, 12 years old, of good ancestry, came to the clinic in 1860 with acute laryngeal and bronchial catarrh, and a mitral insufficiency. These responded to treatment. The child returned in October, 1861, complaining of palpitation of the heart and a stiff neck. At first, there was a nonpainful inelasticity of the skin of the neck so that the head could only be flexed and extended slowly. The face was rotated a little to the left. There was stiffness of the upper lids so that they could not be closed. Several days later, during a sudden rise in temperature, the face, neck and extremities were involved. There was thickening of the subcutaneous fibrous layers, and the thickness of the skin became decreased in isolated patches.

In certain localities, the healthy and affected skin areas were sharply margined. The head moved with difficulty. The eyelids could open only 1 cm. The movements of the tongue were slow. Chewing and swallowing were difficult. The face was masklike in appearance. The arms were slightly flexed at the elbows. The hands were held on the chest or on the epigastrium. The movements of the upper extremities were limited, but the lower limbs could be extended fully. The temperature was normal, although the patient complained of cold feet.

CASE 10.—(Lewin and Heller, 149). *DICKINSON* (*Obstet. Jour.*, 4, 1877). The patient was a boy, $3\frac{1}{2}$ years old, in whom the edematous stage of the disease began acutely on the face and trunk. On the second day, the extremities were affected. The tongue became hard. It was difficult for him to open his mouth and eyelids. The forehead and scalp were hard. Sensation of the skin was normal. The skin was dry except for the soles and palms. There was recovery in seven months, although the face and scalp were still slightly indurated.

CASE 11.—(Lewin and Heller, 135). *MADER* (*Ber. d. kk. Rudolphstiftung über 1877*). A girl, 17 years old, gave a history of cessation of menstruation, swelling of both ankles, knees and wrists, following exposure to cold air, eight months before. Six months previous to time observed, there was stiffness of the back and brown spots on the hands and face. The face, especially the lips, became hard. The skin of the rest of the body also became hard and thick. The neck was almost free. The skin over the joints of the lower limbs was most affected. All active and passive motions were constrained and painful. The attitude of the girl in bed was lifeless as a statue. The subcutaneous fat was absorbed. Eighteen days after admission (May 23, 1877) there were observed symptoms of pericarditis, and an enormous exudative pleurisy. July 26, the patient was bed ridden. September 18, there were chills, high temperature and diarrhea. October 1, vomiting began. October 8, daily vomiting of dark green masses, and much gastric distress. During her stay in the hospital, salicylates were found useless, and massage proved painful. Electricity and baths, however, were helpful. October 13, death occurred. The post-mortem examination disclosed universal scleroderma, thickened pleura and pericardium,

and fatty degeneration of the heart. There was an old tuberculous lesion of the left apex. The skin showed increased consistency and a thickening of the corium. In places, as on the face, there was slight atrophy of the subcutaneous connective tissue, but the fat was still present. The finger nails were thick and strong but not the nails of the toes.

CASE 12.—(Lewin and Heller, 290). *VENTURA* (*Gazz. med. ital.*, 1879). The affection occurred in a girl, 10 years old. The child was healthy until 1879 when pus was evacuated from a swelling on one of her fingers. There was no subsequent healing. She caught cold. There was a coryza, a cough and some fever. June 27, there was difficulty in talking and in opening the eyes. There was a feeling of tension in the head and over the breasts. Extensive induration of the skin was noted by the mother. The physician's examination disclosed a right-sided pleurisy, bronchopneumonia, and a diffuse scleroderma. The face, neck, arms and legs were especially affected. It was difficult for the child to speak or chew, or even to open her mouth. Walking was ungainly. The lung affection took a favorable course. There was a remarkable relapse of the induration of the upper lids, cheeks, neck, thorax, abdomen and lower extremities. The skin was like leather; that of the face was stony hard and glossy, and the scalp was sclerosed. The upper and lower arms were thin, without fat and with much evidence of atrophy. Sclerotic bands from the upper to the lower arm held the elbows half flexed. The genitals and feet were entirely free.

CASE 13.—(Lewin and Heller, 271). *SILBERMANN* (*Jahrb. f. Kinderh.*, 1880). The child, a girl, 5 years old, suffered with tonsillitis, pharyngitis, difficulty in swallowing, pains in her legs, and a scarlet eruption on her breasts, abdomen and arms of one day's duration. There was high fever and slight albuminuria. After the disappearance of these symptoms, there was enlargement of the lymph nodes behind both ears. Three days later, there was swelling of the eyelids. During the second week of her illness, there was slight hardening of the skin of the lower limbs. The tongue was harder than normal, and more difficult to move. The sensation of the skin of the forearms, chest, and upper extremities was lessened, and these parts also were deeply pigmented. Perspiration was normal. The temperature was subnormal. Recovery was complete in six weeks.

CASE 14.—(Lewin and Heller, 413). *FRIEDLANDER* (*Arch. f. Kinderh.*, 1888). A girl, 5 years old, was frightened by a runaway horse five months previously. Shortly afterward she was frightened by a sudden firearm salute in a church yard. The child's character changed. She complained of pain in the neck and a sense of constriction on opening the mouth. Her face was hard and immobile. Whistling was impossible. The neck and back muscles seemed to be fused with the skin into one hard mass, and there was difficulty in motion about the joints of the elbow, hand, knee and ankle. There were dark pigmented areas over the skin; abdominal breathing was difficult because of the great infiltration along the linea alba; the thighs and arms were hard; the uvula was rigid, and the gums were hard.

CASE 15.—(Lewin and Heller, 199). *WAUSSUROW* (*Klin. Samml. f. Dermat.*, Moscow, 1886). Following a cold, a young girl acquired universal scleroderma. The illness lasted six months. The patient had had a recto-vaginal fistula, also rectovesical and inguinal fistulae. The possible etiology was given as long continued absorption of pus.

CASE 16.—(Lewin and Heller, 318). *KROCHT* (*Moskauer venerol. Gesellsch.*, 1893). The patient was a boy, 12 years old. The entire skin except the fingers and the soles of the feet was hard. The skin of the thorax was especially hard. There were areas which were dark blue and much pigmented.



Acute diffuse scleroderma in a girl, aged 9 years. Note the absence of wrinkles or folds in the skin. The mouth and eyes are opened as wide as possible. Pressure with the finger does not pit the skin. The child was freckled under normal conditions.

ETIOLOGY

The investigation of the causes of diffuse scleroderma have not been definitely advanced since Osler² wrote long ago:

"We know really nothing of the essential causes, and the data are not yet at hand upon which a satisfactory theory can be based. The disease is variously regarded as a trophoneurosis dependent upon changes in the nervous system; a perversion of nutrition analogous to myxedema and due to disturbance of the thyroid function; a sclerosis following widespread endarteritis; a primary, slow hyperplasia of the collagenous intercellular substance of the corium—fibromatosis; or a primary affection of the lymph channels, central or peripheral. The first named view, the one most generally held, may well serve as a working hypothesis."

Foerster,³ in a splendid article, reviews the part that the internal secretions play in scleroderma, among other skin diseases. He says:

"A review of the various observations, just recorded (cases of scleroderma with Graves' disease; with myxedema, and with ovarian changes) leads one to the conclusion that there are reasonable grounds for attributing an important part in the etiology of scleroderma to morphologic and functional changes in the internal secretory organs and especially in the thyroid gland. This newer conception would seek to displace the at present widely accepted view that scleroderma is an 'angio-trophoneurosis,' and it appears even now to have much evidence in its favor."

A great number of the cases follow colds, exposure to wet and draughts. Tonsillitis preceding many of the recorded cases, coupled with the fact that the neck is almost always the first part affected, leads one seriously to consider scleroderma diffusa as an affection spreading from tonsillar lymphatic tissue, through the lymphatics of the skin. In the case now recorded such was probably the mode of infection, but at the time the child came to the hospital there was no evidence of tonsillar disease.

Amenorrhea is mentioned in several instances as the causative preceding event, and in one case great fright was supposed to have caused the affection.

The consensus of opinion today, with regard to the etiology of scleroderma, is that the affection is at least closely related to disturbances of function, or "unbalance" of the secretion of one or more so-called ductless glands.

2. Osler: *JOUR. CUTAN. DIS.*, December, 1898.

3. Foerster: *JOUR. CUTAN. DIS.*, January, 1916.

DIAGNOSIS

Diffuse scleroderma in children is readily diagnosed, since the main symptom is so evident. From extensive circumscribed scleroderma it can be diagnosed by the history of onset, the lesions occurring as single patches which have progressed and the presence of new patches; by the presence of normal unaffected skin, and by the duration, which is usually long. From sclerema neonatorum, diffuse scleroderma is distinguished by the age of the patient, the former affection being present in the new-born or recently born, usually not later than two weeks, and by its fatal outcome.

Diffuse scleroderma in children is differentiated from cretinism by the lack of concomitant signs and symptoms.

SUMMARY

The case reported is an unusual example of acute diffuse scleroderma, in a child, 9 years of age. The disease followed a tonsillitis. It appeared first on the back of the neck, and spread so that no part of her body was left free. The heart rate was accelerated, but there was no evidence of cardiac disease. The mentality of the child was not affected. Malfunction of none of the glands of internal secretion could be determined. The child, after five months, had recovered. There remained some hardness of the scalp and of the skin of the thighs. No atrophy was present. Thyroid extract had been given for several months, but discontinued because of its effect on the heart rate and the presence of a tremor. Oil rubs had been given actively.

Histologic study was not possible, as a biopsy was refused.

Thanks are extended to Dr. Longcope of the Presbyterian Hospital for permission to report the case, and for the photograph.

Clinical Reports

A CASE OF SYPHILITIC KERATODERMA *

HERBERT W. BAKER, B.A., M.B.

TORONTO, CANADA

The case that I wish to report to you is one of syphilis as seen in one of its rarest manifestations, namely, syphilitic keratoderma.

History.—The patient, a salesman, aged 50, married eleven years, with no children, was referred to me March 13, 1917, by Dr. W. H. Groves of Burnhamthorpe. He was suffering from a severe attack of erysipelas of the face and scalp, which nearly proved fatal. In the course of routine examination I found the skin lesion which I am about to describe. Further questioning brought out the fact that about thirty years ago he was infected with the *Spirocheta pallida* and had the usual hard chancre, sore throat and other early signs of syphilis.

Two years after the time of infection a “pimple” appeared on the back of the left heel. This ruptured and discharged thick, black contents. Ever since then he has had trouble with his feet. Twelve years later, that is about fifteen years ago, the condition as I found it in March began. For about five years it was limited to one foot, but after that time it developed on the other foot in a similar manner.

When seen in March, 1917, both feet were very edematous, being too big to get into any boots that he could buy. He gives a history of an attack of acute nephritis twenty-five years ago, but at present the urinalysis shows neither albumin nor casts. The edema has been present about fifteen years. There is slight pitting on pressure, but not nearly as much as one would expect from the amount of swelling. The edema improves a little during the night.

Examination.—The soles of both feet were covered by a very thick skin of a dirty whitish color. It was extremely hard and rough, like shagreen leather. At the fold of the toes there were deep cracks, from which there exuded a little seropurulent discharge with a very foul odor. He stated that at times this discharge is so great that it soaks through his shoes. Here and there one could see cracks in the hardened epidermis a quarter of an inch deep, the tissue at the bottom of the crack being red, but not ulcerated. This condition extended over the sides and top of the feet and more or less up the legs, on the right side reaching about half way to the knees. On the sides and backs of

* Received for publication August, 1917.

* Reported before the Ontario Medical Association in Toronto, May 31, 1917.



Fig. 1.—Plantar surfaces of both feet covered with hard and warty skin resembling rough-grained leather.



Fig. 2.—Warty excrescences, many of them as large as a 25 cent piece, were located on the heels and ankles.

the feet the hyperkeratosis was more of a verrucous nature, the warts being nearly half an inch thick, and varying in area from the size of a 5-cent piece to a quarter. When one tried to dislodge these excrescences, one found that they were very adherent and almost tore the surrounding skin instead of breaking off. Under them the skin was red and indurated.

Clinical Course.—The patient has had considerable pain in his feet for fifteen years. This was of a dull aching character most of the time, being worse before a change of weather and the first thing in the morning, and seemed to be “right in the bones.” At night, in bed, his feet would be so burning hot that he could not sleep.

About six years ago, he also had the same hyperkeratosis on the palmar surfaces of his hands, extending to his wrists and the first

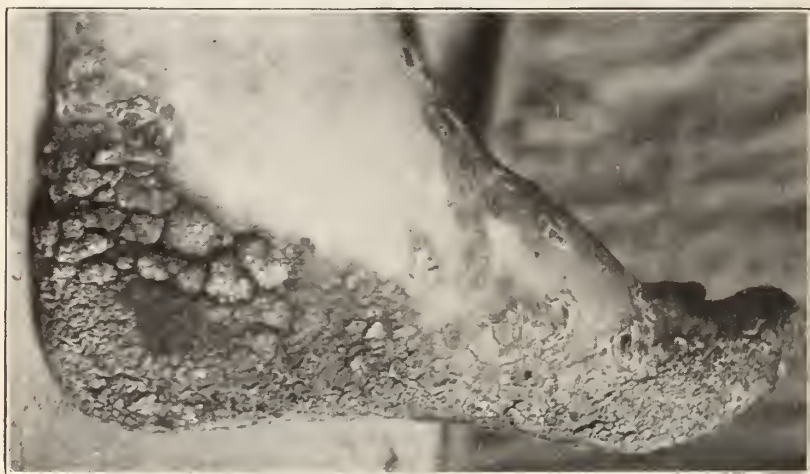


Fig. 3.—Showing the extreme verrucous nature of the hyperkeratosis over the heels and ankles.

two joints of his fingers. The skin at first seemed to thicken like a callus, then became hard, dry and rough, and cracked at the joints. From these cracks a discharge exuded similar to that from the feet. The hands were also somewhat swollen. This condition lasted for six to eight months, but now the skin is perfectly normal without even a scar left to show where the trouble had been.

Treatment.—He has had treatment almost continuously since he had his first symptom. This consisted mainly of mercury and iodids. If he persisted in careful treatment and was in good health generally, his skin condition would improve, but his feet have not been free from swelling or hyperkeratosis in fifteen years.

March 18, 1917, the Wassermann reaction was reported strongly positive. The photographs shown in Figures 1, 2 and 3 were taken April 28.

April 29 he received an intravenous injection of 0.6 gm. of diarsenol. He has had a similar dose about once a week since, in all thirteen doses. After the fourth dose his feet were much improved as shown in Figures 4 and 5. At the date of writing, the skin of his feet is perfectly normal, but the swelling has not completely disappeared.



Fig. 4.—Marked improvement in the condition of the soles of the feet after four weeks' treatment with diarsenol intravenously.

The skin of the sole is red, but appears healthy and is as soft and smooth as a baby's, there being no scar tissue whatever, showing that the condition was purely epithelial. There is no discharge or bad odor, and for the first time in fifteen years he is free from pain and burning sensation.

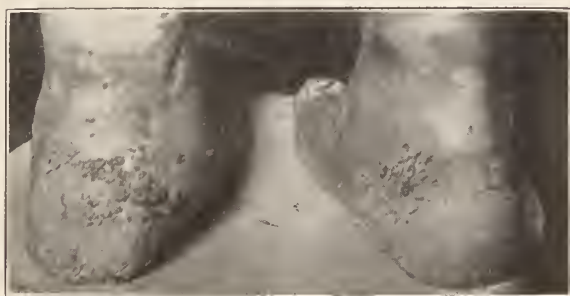


Fig. 5.—Under systematic treatment the skin has cleared up. The surface is reddened but otherwise is becoming smooth and normal. No scarring follows, since the condition involves only the superficial, epithelial layer of the epidermis.

REVIEW OF THE LITERATURE

In searching the literature for a description of this condition or reports of cases, I have been able to find only three references to it. Crocker, Hyde, Dearborn, Pusey, Macleod and Knowles make no men-

tion of it in their texts. Even Sir Jonathan Hutchinson, whose acumen as a clinical observer is unsurpassed, does not mention a similar type of lesion.

Stelwagon¹ casually refers to papillomatous and vegetating syphilides.

Sequeira² describes it as a rare type of tertiary syphilid and says, "it is found as a rule on one foot only, and in some cases it is associated with a pseudoelephantiasis of the limbs. The whole leg is swollen and does not pit deeply on pressure. The condition is believed to be due to lymphatic obstruction, but it is rare to find palpable enlargement of the glands." This description by Sequeira fits this case, except that the condition appeared on both feet and the hands. No palpable glands could be found.

Abraham³ of the West London Hospital reported a case of a late squamous syphilid of the foot showing great hyperkeratosis of the sole superimposed on an infiltrated and hyperemic surface, while the natural lines of the skin were marked by deep fissures. His case improved at first under antisypilitic treatment, but a fungating epithelioma developed near the heel and the limb had to be amputated.

The late Percy H. Ealer⁴ of Philadelphia reported a case in 1915, in which there was a small verrucous patch on the heel which cleared up under treatment with mercury. In his report he says that "this syphilide being a late manifestation of the disease, is therefore asymmetrical. It is also indolent and chronic and may resemble an atypical epithelioma which is not an unusual termination." In the case described in this report the condition was symmetrical. It is well to bear in mind the possibility of the condition becoming malignant, especially in this case, as it has been present for so many years.

One point that I wish to emphasize about this rare lesion is that it does not extend any deeper through the skin than the epithelial layer. This is proved by the fact that it leaves no scar when healed, or even when the scales are removed by force.

I wish to express my thanks to Dr. W. B. Thistle for urging me to report this case, and to Drs. F. C. Harrison and E. J. Trow for their invaluable help in the preparation of this paper. I am also under obligation to Miss Bancroft of the Toronto General Hospital, Roentgen-Ray Department, who so efficiently made the photographs for me.

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TWO CASES OF GONORRHEAL KERATOSIS *

W. H. BROWN, M.B. AND A. M. DAVIDSON, M.B.

LONDON, ENGLAND

CASE 1.—Clinical History.—The case about to be described is the third case of keratosis involving the feet which has occurred in many thousands of cases of gonorrhea treated at a venereal hospital.

The clinical appearances in each case have been different. In the first case the lesions were all discrete and comparatively few in number and presented the typically hard, shotty cones. The second case, which was published in the *British Journal of Dermatology*, April, 1917, was a general plantar keratosis.

This case—the third—was one of an old gonorrhea complicated with chronic prostatitis. He was readmitted to the hospital in November, 1916, with gonorrheal rheumatism. Both knees, the left ankle and the tarsometatarsal joints of the feet were affected. Iritis was present in both eyes, and the patient showed marked emaciation which is characteristic of these cases. He was very ill and ran a temperature of 101 to 102 F. The blood culture was negative.

Description of the Lesions.—Lesions were found on both feet and looked like flat pustules, varying in size from that of a split-pea to that of a 2-shilling piece. They were flat, almost circular and practically white in color, with a trace of inflammatory areola. They were situated on the plantar surfaces of almost all the toes and on the balls of the feet, and all were discrete (Fig. 1). There was no pronounced alteration of the skin over the heel or plantar arch of the foot. On the left foot, the dorsal surfaces of three of the toes presented an appearance which on first sight looked almost like chilblains. The skin was red, tender, and there was distinct swelling. The skin at points was just beginning to dry and become crusted. The whole foot was swollen, due to gonorrheal arthritis.

The largest lesion, about the size of a 2-shilling piece, was on the ball of the great toe. The superficial skin was broken and on reflecting the loose skin a fine layer of white, cheesy material was exposed. On removing this a raw red surface remained.

On the right foot very similar lesions were seen but they were fewer in number. The smallest lesions were about the size of a pinhead and looked like the commencement of staphylococcic pustules. The lesions were situated on the plantar surfaces of the toes and along the ball of the foot. A similar chilblain-like appearance was present on the great toe, little toe and third toe. The skin over the rest of the foot appeared quite normal.

Progress.—As the case progressed the typical hard, dome-shaped lesions with the limpet-shaped crusts developed, which were so striking in the other cases.

The lesions disappeared with desquamation of the skin, and the man returned to duty. The length of time that he was in the hospital was three and one-half months.

CASE 2.—This case showed the exceedingly rare condition of keratosis confined to the penis.

Clinical History.—The patient exposed himself to infection on June 3, 1917. June 21, he noticed a urethral discharge. This was his first attack of gonorrhea. He was treated privately, taking sandalwood oil capsules and syringing twice daily with permanganate of potash. July 10, his right knee became swollen.

* Received for publication October, 1917.



Fig. 1 (Case 1).—Lesions on the plantar surfaces of the toes and feet in a case of gonorrheal keratosis. The whole foot was swollen, the skin broken, and white cheesy detritus was exposed.



Fig. 2 (Case 2).—Gonorrheal keratosis and balanitis circinata. The lesions were covered with greenish colored, glutinous crusts which overlapped like a coat of mail.

Condition on Admission.—He was admitted to the hospital July 12—the twenty-first day of his illness. The patient's temperature was 100.2 F., and there was much swelling of the right knee joint and edema of the prepuce.

Progress.—Within four days the left knee joint became swollen, and a few days after both ankles became affected. The fever continued to range between 99 and 101 F. Twelve days after admission, the glans penis was noticed to be sore and crusted, but it was not until a week later that the crusted condition assumed a very striking appearance and the diagnosis "keratosis blennorrhagica with balanitis circinata" was clearly established.

The penis was swollen and painful; the prepuce had been retracted beyond the glans penis so that there was a considerable degree of paraphimosis. The appearances found at the time of diagnosis are shown in Figure 2. Over the swollen retracted prepuce and over the glans penis there was a very thick, dirty-green, glutinous crust, covering almost the whole of the glans and the inflamed paraphimosed prepuce. These crusts were like thick plates with sharply-defined, rounded edges, covering the parts almost like a coat of mail. Two or three small, early lesions were present on the posterior surface near the frenum, consisting of small circinate lesions of balanitis circinata, about the size of half of a split-pea, which were already showing a tendency to dry and become crusted.

About two weeks later the crusts were gently peeled off, leaving a red, fairly normal looking membrane. Recrusting of the glans penis started a second and a third time, but never again assumed the very striking appearances of the first condition. Owing to the general condition of the patient and the arthritis, no active local treatment could be carried out for some time.

The urethral smear showed a typical film of acute gonorrhea, and the prostate gland was acutely inflamed with an abscess in the right lobe. The patient's eyes were not affected.

At the time of writing this article the patient had greatly improved and was still under treatment.

Society Transactions

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, Oct. 23, 1917

JAMES C. JOHNSTON, M.D., *President*

GRANULOMA FUNGOIDES. Presented by DR. HEIMANN.

The patient had been presented before the Society in February, 1916, as a case of pityriasis rubra of the Hebra type. At that time the patient was covered with a general exfoliative dermatitis. The disease had started a year before with a small itching spot, which had spread rapidly. The patient had at times a temperature of 104-105 F., slept poorly and was generally in a run down condition when presented. At that time the consensus of opinion was in favor of the diagnosis of pityriasis rubra of Hebra. A little later he began to develop nodules in the skin; one of these was excised and showed an infiltration which was not typical of granuloma fungoides. Then he went to the Mount Sinai Hospital and was treated with the roentgen ray, and then to Vanderbilt Clinic, where also he was treated with the roentgen ray. He then wanted to go to Europe and was referred to Jadassohn, who considered the case one of mycosis fungoides.

On presentation the man's skin was normal, excepting that it was deeply pigmented.

LICHEN PLANUS. Presented by DR. HEIMANN.

The patient was a young man, under 20, who in May appeared for the treatment of a diffuse itching. On the right thigh he had a group of elevated spots forming small plaques, half an inch in diameter; on his belly were small brown spots, and there were also lesions on the penis and thigh. None of the usual treatments benefited him, and finally, considering the nature of the spots on the abdomen, it was suspected that it might be a case of lichen planus, while those on the thigh suggested lichen planus hypertrophicus. It was accordingly decided to try roentgen ray treatment to produce involution of the lesions, and this proved successful. From time to time the itching, which could not be explained, became latent, but the pigmentation on the thigh and abdomen persisted. The lesions of the penis also suggested lichen planus. The case seemed worth showing on account of the history and the conclusions reached.

ACNITIS (Tuberculid). Presented by DR. TRIMBLE.

The patient, a young woman, aged 16 years, was born in the United States. There was no family history bearing on the case. The eruption began about two years ago, appearing first on the face; then similar lesions developed on both arms. They consisted of necrotic papules and pustules, some of which had resulted in depressed scars. The scars on the arms were more typical than those on the face.

PECULIAR DEPIGMENTATION OF THE NECK. Presented by DR. TRIMBLE.

The patient was a young woman, aged 20, born in Russia, who presented a peculiar light brown pigmentation on the neck, reaching as far down as the shoulders. It was almost a counterpart of the well known pigmentary syphilid. There was, however, no history of syphilis, and the Wassermann reaction was negative.

DISCUSSION

DR. HEIMANN said that in his opinion there were two anatomic processes going on; on the one hand, pushing aside the pigment; on the other, atrophy. He thought that the patient might present that very peculiar form of scleroderma—white spot disease. The lesion seemed to be in the white areas.

DR. JOHNSTON agreed with the opinions expressed, but did not see any evidence of an inflammatory process. Dr. Heimann identified the condition more nearly, perhaps, when he likened it to disseminated morphea, or white spot disease. The basic lesion was probably a thrombosis of the superficial capillaries of the skin, an atrophy like that which took place in lupus erythematosus.

DR. TRIMBLE said he had seen the patient only once before, and had presented her because the condition bore such a strong resemblance to the pigmentary syphilid, although it was known not to be that. He was not inclined to think there was atrophy in the lesion. This crinkling that had been spoken of might be due to the twisting of the neck from one side to the other. The pigmentation of the neck was, in his opinion, the disease, not the white areas; the latter areas corresponded to the normal skin. He therefore considered it a hyperpigmentation rather than a leucoderma.

DISCOID ERYTHEMATOUS LUPUS. Presented by DR. TRIMBLE.

The patient was a negress, aged 35. The lesion, which was situated on the forehead and cheeks, was very dark colored, infiltrated, and had a distinctly raised border, which was at first somewhat festooned. The Wassermann reaction was ++++ when she first came to the clinic. She was treated for syphilis in the usual way, with salvarsan and mercury, without material effect on the skin lesion.

ICHTHYOSIS HYSTRIX. Presented by DR. MACKEE.

The patient was a girl, aged 7 years. The eruption began shortly after birth with a generalized erythema. After lasting for several months, this erythroderma gradually disappeared as the horny layer became thicker. Finally, there developed a universal ichthyosis. All the flexures were involved. The face, scalp, palms and soles were scaly. Elsewhere the ichthyosis was of the hystrix variety, the horny layer being black and papillomatous. Every summer there had been a remarkable exfoliation, the patient's skin becoming almost normal. The patient's mother stated that the child's hair and nails had always grown very rapidly. This case, the speaker said, would undoubtedly be regarded as an example of the dry type of erythroderma congenitale ichthyosiforme.

DISCUSSION

DR. SHERWELL agreed with the diagnosis, and then asked if the sebaceous glands were normal. The case somewhat resembled a seborrheic ichthyosis, which becomes better of itself in summer. The true ichthyoses have entire absence of the sebaceous glands. The child's skin was soft and pleasant to the touch, and it would seem to be not a true case of ichthyosis.

LUPUS ERYTHEMATOSUS WITH NODULAR LESIONS. Presented by DR. WISE FOR DR. FORDYCE.

S. G., woman, married, aged 27, applied at Dr. Fordyce's clinic Oct. 15, 1917. She gave a history of having had an attack of appendicitis five years ago, and the lesions of lupus erythematosus appeared shortly afterward. Besides the ordinary diffuse lesions of the face and forehead, the patient presented several tumorlike, discoid, raised, infiltrated and well circumscribed lesions on the arms and trunk, resembling the type of nodular lupus erythematosus as

described by Crocker. On the backs of the elbows and forearms were numerous scars of papulonecrotic tuberculid.

DISCUSSION

DR. MACKEE said he agreed with the diagnosis of papulonecrotic tuberculid of the forearms. The lesions of the face he thought the ordinary type of lupus erythematosus, while the lesions on the arms and chest he regarded as sarcoid. Dr. Wise mentioned Crocker's nodular lupus erythematosus. Almost every case of Crocker's nodular lupus erythematosus that had been presented in New York had turned out to be sarcoid.

DR. TRIMBLE said that he had recently had a case of erythematosus lupus in association with sarcoid. The sarcoid lesions were investigated histologically and proven, but no biopsy was made of the lupus erythematosus on the face, since the case was regarded as one of sarcoid. In his patient the sarcoid lesions were the most extensive, and the lupus erythematosus was confined to the face. A similar condition might exist in the case under discussion, though Dr. MacKee had said that one of the lesions on the woman's right arm had broken down. If that were true, it would eliminate sarcoid. Should these lesions necrotize they would be, in the speaker's opinion, analogous to Bazin's disease.

DR. MACKEE, replying to Dr. Trimble, said that the lesion on the arm had involuted without breaking down and had left a deep atrophy. One could see the atrophy, and on palpation the finger entered a deep depression. The deep atrophy was rather characteristic of sarcoid.

DR. HEIMANN said he was inclined to agree with the view expressed by Dr. MacKee, that there were three types present, and referred to the case shown by himself and asked, Why was this not Bazin's disease, too?

DR. LANE agreed with the diagnosis. The chief interest in this case was that in the same patient there were different reactions to what was evidently the same cause.

DR. JOHNSTON said that it made no difference to the rest of the medical world whether or not the lesions were differentiated. Every one knew that they were all the same thing, just as much as the squamous papillary syphilid was the same as gumma. These distinctions were of value only to the dermatologist.

ATROPHODERMA CIRCUMSCRIPTUM. Presented by DR. WISE FOR DR. FORDYCE.

A. W., woman, aged 29, married, apparently in good health, applied at Dr. Fordyce's clinic Oct. 5, 1917. Her affection was of eight years' duration. On the upper portion of the back, sides of the neck, upper eyelids and on the shoulders were a number of isolated and confluent lesions of various types. The right upper eyelid presented an oval patch of atrophic skin with evidences of anetodermia. Similar much smaller lesions were present on the sides of the neck. On the upper part of the neck was a large, roughly triangular patch of raised, slightly infiltrated skin, presenting a reddish to violaceous tint. Its surface was smooth, free of scales, somewhat indurated and resembling an area of persistent urticaria diffusa. In some areas there was distinct depigmentation. The follicular orifices were well marked in most of the lesions. Opposite the dorsal vertebrae were two pea sized, soft tumors, simulating von Recklinghausen's disease. None of the lesions had changed in appearance in the past three or four years.

DISCUSSION

DR. HEIMANN stated that there was little to be said about the case. Three conditions suggested themselves: Macular atrophy, of Jadassohn, multiple benign tumorlike growths of the skin, of Schweninger-Buzzi, and sarcoid. He did not think it was sarcoid, but that the diagnosis lay between the first two mentioned. Recently many authorities ceased to differentiate the two.

DR. MACKEE agreed with Dr. Heimann. He thought that the lesions represented the early edematous and erythematous stage of macular atrophy. The speaker recalled a case presented by Dr. Gottheil several years ago where similar lesions showed under the microscope nothing but a marked edema of the connective tissue.

DR. JOHNSTON asked whether in the case of a tumor with so much consistency as this the skin which has been stretched for months or years would not show an atrophy which would have nothing to do with the original process as such.

FOLLICULAR LICHEN PLANUS. Presented by DR. HEIMANN FOR DR. WHITEHOUSE.

The patient was a woman, aged 45 years, who came from Dr. Whitehouse's service at the Post-Graduate Hospital. The patient had been ill for three months and presented a mixed type, follicular and annular, lichen planus scattered over the limbs and trunk.

LUPUS ERYTHEMATOSUS DIFFUSUS. Presented by DR. WISE FOR DR. FORDYCE.

J. W., man, aged 51, married, native of the United States, applied at Dr. Fordyce's clinic Oct. 22, 1917. His disease was of seven years' duration. He was afflicted with pulmonary tuberculosis. He presented a diffuse and widespread erythematous and scaly eruption affecting the face, chest, back, arms and the backs of the hands. The lesions on the backs of the fingers resembled ordinary perniones.

CASE FOR DIAGNOSIS (ENDOTHELIOMA). Presented by DR. MACKEE FOR DR. FORDYCE.

The patient was a man, aged 29, from Dr. Wise's service at Mt. Sinai Hospital. The duration of the eruption was eight years. The lesions were located on the chest, neck and upper back. They consisted of yellowish to yellowish-brown, pinhead to split pea sized papules of a slightly flabby consistence. These lesions were scattered, for the most part, over the chest. They were both discrete and confluent. Over the sternum were several large comedones, a few sebaceous cysts and fibromas. Clinically, the diagnosis rested between syringoma and fibroma. The lesions did not appear sufficiently firm for syringoma, nor were they dark enough. At the same time they seemed to be too firm and too dark for fibroma.

The histology showed a dense infiltration of large round cells with granular cytoplasm. For the most part the nucleus was centrally placed, but when eccentric the appearance was that of a plasma cell. The cells, also, were suggestive of nevus cells. In the dense mass of infiltration the cells could be seen in columns, pavementlike, as though ducts were being formed. In the sections from the earlier lesions these cells were seen to be derived from the blood vessels or from the perivascular lymph spaces, and for this reason the new growth was thought to be an endothelioma.

DISCUSSION

DR. JOHNSTON pronounced the lesions as endothelioma.

DR. HEIMANN said that a point which aided Dr. Johnston's attitude was the beginning of tumor growths in the perivascular lymph spaces.

DR. JOHNSTON replied that if the origin of the cell can be traced to its parent in the beginning of the tumor, that solves the question of diagnosis and of varying physical features. The histological picture was that of endothelioma.

SUBCUTANEOUS GUMMA. Presented by DR. HEIMANN.

This patient had been presented before the Clinical Section of the American Medical Association with the diagnosis of subcutaneous gummas of an unusual

type. At that time he had twenty-two gummas on the right hand and eleven on the left. The Wassermann reaction was +++ and the microscopical examination was fairly typical. The history given was that these lesions had been present for two years before he was shown, but that they had increased in number. There was also a history of a primary lesion twenty years ago.

The speaker said that the only reason he had happened to think of gumma was that he had seen a similar case some years ago, the gummas in that instance extending over the fingers. The man had had six or seven salvarsan injections during May and June and three or four since. There were now eight lesions on the right hand and none on the left. There were also two very minute nodules under the skin at the points of the elbows. Several of the lesions on the hand might well be only calluses, since the man was a printer and was liable to develop such calluses. At present the Wassermann reaction was very weak. (Dr. Heimann showed pictures of the condition as it appeared when first seen.)

NEW YORK ACADEMY OF MEDICINE

Section on Dermatology

Regular Meeting, May 1, 1917

GEORGE M. MACKEE, M.D., *Chairman*

PELLAGRA. Presented by DR. WISE.

C. F. M., man, aged 62, was a native of the United States and had been a resident of New York City all of his life. He presented himself at Dr. Fordyce's clinic with a rather well developed erythema of the backs of the hands, the frontal portion of the face and the sides of the neck. The redness of the skin first made its appearance about two weeks before. The backs of the hands were purplish-red, the skin was smooth and covered by a layer of fine, adherent scales. The erythema extended up to the wrist joints. The hands were tender, but itching was absent. The nose and the adjacent skin was reddish-brown, scaly and somewhat rough in appearance. On the sides of the neck were a few circumscribed, erythematous, scaly patches. The patient had been under the care of a physician for the past ten months, for the treatment of "stomach trouble." The patient stated that he had been losing weight steadily during the past year. There were no intestinal or mental symptoms. The tongue, however, was smooth, red and glazed.

DISCUSSION

DR. HEIMANN agreed with the diagnosis because of the marginated, erythematous lesions on the hands and the eruption on the face. The history, the speaker thought, was a little unusual.

DR. CHARGIN agreed with the diagnosis and said that he recalled a similar case. It was usual for the eruption to be worse in summer; in Dr. Wise's case the eruption, however, began late in winter. The speaker also called attention to the fact that there was some atrophy on the backs of the man's hands.

DR. SATENSTEIN (by invitation) said that he had seen cases in the City Hospital which had been diagnosed as pellagra but which the neurologists said were due to an alcoholic neuritis.

DR. MACKEE said that there was hardly any question about the diagnosis. The plaque on the back of each hand, possessing a bronze-red color and ending abruptly at the wrists, was typical. There was also a collarette consisting of thickened horny layer and erythema on the neck. The face showed the horny spines so commonly seen in pellagra. The gastro-intestinal symptoms, while not marked, were definite. He had been constipated and had no appetite and

had been more or less nauseated over a period of a year or more and during this time he had lost 50 pounds in weight. The patient was very despondent, even melancholic. The man was not an alcoholic. The most interesting point about the case was that the disease, in this instance, was indigenous to New York. The man was born and had always lived in New York City. Three years ago he was in Hartford, Conn., for nine weeks. Eighteen years ago he was in the South for a few months. The speaker said that there were only three or four cases reported in the literature in which the disease developed in New York State. It was doubtful if these patients did not contract the disease elsewhere. Several cases of pellagra had been seen in the various institutions of New York City and state, which had not been recorded. In all probability the disease was much more common in New York than had been supposed, but the cases had not been recognized.

DR. POLLITZER agreed with the diagnosis and called attention to the glossitis which this patient presented and which was frequently seen in this disease. The speaker said that there was no doubt but that cases developed in New York City and that they were much more common than was supposed. He had called the attention of the Health Department to this fact several years ago. He recalled a case that he had seen at the Post-Graduate Medical School; a young woman who lived in New York but had traveled occasionally and had been in Virginia just before the disease developed, had a marked inflammation of the buccal mucosa together with severe gastro-enteric symptoms. The speaker said that Dr. Wise's case was undoubtedly one of pellagra in a native of New York who had not resided elsewhere.

LUPUS ERYTHEMATOSUS. Presented by DR. ROTHWELL.

The patient was a woman, aged 45, married, housewife, who presented about the nose and mouth, extending down to the chin, a number of dark-reddish, slightly infiltrated, only slightly scaly lesions, of about pea to bean-size; the borders of the individual lesions were quite distinct and there was but little elevation above the level of the uninvolved skin. While the general area involved was that about the mouth, there was also involvement of the vermilion border of the lips and the mucous membrane on the inside of the cheeks, and the exterior of the right ala nasi.

The portion of the ala nasi involved showed distinct and adherent scales; the vermilion border showed only a very thin scaliness with appearance of thinning of the border itself; the inside of the cheeks showed some reddened area with thinning, and some whitened areas.

The affection began eight years previously within the mouth and was considered by the patient to be due to contact with carious teeth; about one year previous to presentation it appeared on the right cheek, spread over both lips and chin, and then gradually disappeared to some extent.

The Wassermann test was negative.

LESION ON THE TONGUE, FOR DIAGNOSIS. Presented by DR. HEIMANN.

C. T., man, aged 38, married, was from Dr. Fordyce's clinic. His wife had had two miscarriages; one child was living and apparently healthy. He denied infection with syphilis. On the sides and dorsal surface of the tongue were several grayish-white, irregularly oval, somewhat raised, sharply outlined patches, said to have been present since the past year. They would sometimes diminish in size, but had never entirely disappeared. Eating sharp foods and ingestion of hot liquids provoked considerable pain. There were no clinical evidences of syphilis. The Wassermann test had not yet been reported.*

*The Wassermann test was + + + +.

DISCUSSION

DR. CHARGIN thought the case was one of syphilis. He called attention to the fact that the lesions were circinate, the rear patch being made up of three distinct confluent papules.

DR. POLLITZER said that he was not prepared to make a diagnosis. The fact that the lesions had existed a year without distinctly progressing was against syphilis. If, however, it were syphilis it would have to be a gumma, as a mucous patch would not last a year and it would not be covered with a false membrane as in this case. He would think seriously of a trauma with a possible infection with Vincent's spirillum.

DR. HEIMANN said the fact that the lesion was stationary would indicate that it was a low-grade injury. The speaker said he would investigate and see if he could demonstrate Vincent's spirillum. He would also have a Wassermann test made and would endeavor to make a biopsy. He thought the diagnosis rested between gumma and some ordinary inflammatory ulcer.

LYMPHANGIECTASIS. Presented by DR. ROTHWELL.

The patient was a man, aged 55, married, Russian, tailor, who presented a general enlargement of the left leg (from knee to toes) with many small, compressible, thick and thin walled, pearly and reddish, vesicular dilatations, the last varying in size from a large pinhead to a pea. The general enlargement of the leg reached possibly two or two and a half times the size of the right leg; the swelling could be made to pit on pressure, but there seemed to be a general hyperplasia of the involved tissues. On the lower, front portion of the leg the surface presented a warty appearance, probably the sequel of the drying up of preceding vesicles.

There was a history of thirteen years' duration and no history of any traumatism to account for the occurrence. The patient complained that it was difficult to walk about and to use his foot on sewing machines.

DISCUSSION

DR. LAPOWSKI said that he was in doubt about the diagnosis. He had had the patient under observation several years ago at which time there were annular patches composed of tuberculid-like lesions. The Wassermann reaction was negative. He gave the patient calomel injections and the lesions disappeared, leaving scars. New lesions developed later. He had considered the case to be one of tuberculid and had never seen a papule or vesicle from which lymph could be obtained.

CASE FOR DIAGNOSIS. Presented by DR. LAPOWSKI.

B. P., boy, aged about 8 years. The eruption, which started one year ago, consisted of an erythematous patch which extended from the buttocks to the lower third of the thighs. The patches on the thighs were sharply defined, slightly infiltrated and if left without treatment would, in a few days, be covered with very thin, hardly noticeable, dark-brown scales, accompanied with some fissuring. The patches were dry but not itchy. Three months ago the eruption appeared on the face, arms and extremities but soon vanished, leaving only the eruption on the thighs.

DISCUSSION

DR. SATENSTEIN (by invitation) said that the peculiar situation of the lesion suggested the possibility of a local irritation produced by sitting on a lavatory seat which perhaps had been cleansed by some irritating chemical.

DR. HEIMANN said that the case was one apparently of dermatitis with thickening of the skin and the location and the sharp limitation suggested a local etiologic factor. The speaker thought that Dr. Satenstein's suggestion was a very good one.

DR. POLLITZER thought that the location would rule out Dr. Satenstein's suggestion because the lesions extended well on the sacral region. The slight infiltration, erythema and scaliness suggested parapsoriasis or parakeratosis. The speaker did not care to commit himself to a diagnosis without further study of the case.

DR. HEIMANN did not agree with Dr. Pollitzer in regard to the location of the lesion ruling out Dr. Satenstein's suggestion. He called attention to the fact that the boy was very small and that contact with the lavatory seat might extend well up on the sacrum and to the thighs.

DR. LAPOWSKI said that he could rule out the local cause which had been suggested, because for four weeks the boy was dressed with a mild salve and bandages from the knee to the waist. The dressings were removed in the dispensary.

TOXIC ERYTHEMA WITH ANNULAR AND BULLOUS LESIONS.

Presented by DR. LAPOWSKI.

The patient, Mrs. S. R., aged 49, had been under the speaker's observation since 1908. In that year, in the ninth month of her sixth pregnancy, the patient complained of pruritus of the abdomen. There was no eruption until after confinement, when serpiginous and annular erythematous patches, containing bullae and vesicles, occurred on the thighs and back. This eruption disappeared in two months. A year later, during another pregnancy, there was another eruption which began with pruritic, urticarial wheals. Later the eruption became configurate and involved the buttocks, crura and the flexor surfaces of the forearms and thighs. Vesicles and bullae were also present. The patient had chills and fever and nausea. The mucous membranes were not affected. The eruption disappeared only to reappear in a month, without premonitory symptoms and accompanied by vomiting spells. The patient at this time was pregnant and three weeks before confinement there was not a lesion on her body, but directly after confinement there was a fresh outbreak. In 1911, the patient received a burn on the right thigh which left a hypertrophic scar. In 1914, the patient had an attack of herpes of the right cheek and impetiginous lesions appeared at the mucodermal junction of the upper and lower lip. These lesions disappeared in one week. In the same year, independent of gestation, the erythematous-urticarial, vesiculo-bullous eruption reappeared. This was preceded by chills and fever. In this attack the buccal mucosa was involved. From 1914 up to the time of presentation there were one or two recurrences each year, always of the same type and location. When the patient was presented before the Section she was suffering from an acute outbreak of this eruption.

DISCUSSION

DR. SATENSTEIN (by invitation) suggested that the patient's teeth be examined as the eruption might be due to and kept up by a focal infection.

DR. LAPOWSKI did not think the teeth had anything to do with the condition as these eruptions appeared in cases when there was no dental disturbance and in other cases the eruption reappeared after faulty mouth conditions had been corrected.

TOXIC ERYTHEMA WITH URTICARIA IN A SYPHILITIC. Presented by DR. LAPOWSKI.

The patient, Mr. P., aged 25, had a penile chancre five years ago, followed by clinical manifestations of secondary syphilis. He received many injections of mercury and one intravenous injection of salvarsan. The eruption for which the patient was presented developed fifteen months ago. When presented before the Section, the eruption was limited to the neck, shoulders, trunk and the upper extremities. The lesions consisted of erythematous patches, urticarial wheals and nodular lesions simulating the papulo-necrotic tuberculid. In many places

the papular elements were arranged in circles and semicircles. The von Pirquet reaction was negative.

CUTIS MARMORATA. Presented by DR. LAPOWSKI.

The patient, L. D., was a boy, aged 15 years. He was a syphilitic and had been treated by inunctions and salvarsan injections. It was impossible to ascertain the date of the syphilitic infection or the beginning of the cutis marmorata. The condition was generalized. Almost the entire body was covered with purplish, annular macules which disappeared on pressure. The eruption was permanent, that is, it did not disappear and recur.

DISCUSSION

DR. HEIMANN said that the condition was certainly very interesting and perhaps unique. There had been a great deal of study and discussion relative to these vascular changes, which, however, had led to no definite conclusions. In this particular instance the vascular dilatation was permanent and it was difficult to see how this could happen without anatomic changes in the capillaries, especially the deeper veins. Stokes and others had described permanent capillary dilatation in the nature of telangiectasia but this case had nothing in common with those described by Stokes. The speaker was not willing to hazard an opinion until he had seen and studied more cases.

DR. POLLITZER called attention to the cutaneous circulatory distribution. The distribution of the capillaries in the skin was arranged in the shape of cones with their bases at the surface and their apexes deeper in the skin. These circular bases received a direct blood supply while the peripheries of the circles and the triangular spaces between adjacent circles were supplied by collateral vessels. If, therefore, the disturbance was in the area of direct circulation, the lesions would be circular; if the collateral circulation were disturbed the effect would be manifested in the collateral network on the surface. The speaker knew of no process that would produce a permanent cutis marmorata. Apparently there must be some change in the walls of the vessels and it was possible that syphilis was the etiologic factor.

DR. LAPOWSKI said that Ehrman and Adamson described cases similar to this one and Ehrman mentioned syphilis as a possible cause. The speaker said that it was to be regretted that in his case it was impossible to tell whether the eruption had appeared before or after the syphilitic infection. The speaker doubted if syphilis was the cause of the eruption in this case, as the lesions were too symmetrical, and were not influenced at all by treatment, while the papular lesions at the anus improved greatly. One calomel injection had been given without any improvement of the cutis marmorata. (The patient never returned.)

DERMATITIS EXFOLIATIVA. Presented by DR. LAPOWSKI.

The patient, R. I., was a man, aged 62. The eruption for which the patient was presented developed four months ago, on the left side of the cheek, as a small, scaling patch. Two weeks later, the entire face became swollen and scaling. The eruption appeared on the hands and then gradually spread over the entire body. The only past history that could be obtained was one of chills and fever, over a period of five years. When presented before the Section, the skin of the entire body was red and infiltrated and covered with easily detachable scales. The physical examination was normal as also was the urine.

DISCUSSION

DR. POLLITZER suggested the possibility of leukemia and requested that a blood count be made. He also suggested that a von Pirquet test be made, because tuberculosis might be the basic cause.

DR. HEIMANN recalled a case, the father of a colleague, who had a similar but more pronounced condition suggesting pityriasis rubra (Hebra). Treatment was unsuccessful for a long time. Finally a dentist extracted his teeth, which were all diseased, and shortly after the eruption disappeared and had never returned. The patient had had general adenopathies and the speaker considered, at the time, that among other possibilities there might have been a disturbance of one or more of the ductless glands.

DR. LAPOWSKI said that he had never seen or heard of a case in which the cause was definitely established. Such cases should be taken into the hospital and studied.

ARSENICAL PIGMENTATION. Presented by DR. WISE.

F. F., man, aged 39, a widower, was from Dr. Fordyce's clinic. He was a native of the United States and had spent several years in the tropics, where he had contracted enteric fever, for which he had been advised to take arsenic. He was also subject to epileptic attacks and had been taking potassium bromid, in conjunction with the arsenic. With varying intervals, he had been under arsenical medication during the past seven years. Syphilis was denied and the Wassermann reaction was negative. With the exception of the face, hands and feet, the skin of the entire body, but more especially the chest, back and abdomen, presented a dark-brown, mottled and reticulated pigmentary deposit. The skin was smooth and free of scales. There was a slight hyperkeratosis of the palms and soles.

DERMATITIS HERPETIFORMIS. Presented by DR. WISE.

E. R., man, aged 26, married, was a native of this country and applied at Dr. Fordyce's clinic for the relief of an intensely pruritic dermatosis which began six years ago, on the buttocks and elbows, as small papules and vesicles. He presented areas of grouped papules and broken down vesicles, together with large, well-defined patches of deeply pigmented skin, on the abdomen, buttocks, back and extremities. Over the buttocks, the grouping of the lesions and the degree of pigmentation were most pronounced. He had been subjected to many forms of treatment, apparently without avail.

DISCUSSION

DR. LAPOWSKI said that the patient had had the disease for six years and yet the trunk was entirely free from lesions which, he thought, was a very rare condition in dermatitis herpetiformis. The speaker called attention to the fact that there were annular eczematous lesions and he would suggest the diagnosis of parasitic eczema.

DR. HEIMANN said that he could see no grounds for the diagnosis of eczema marginatum. The case impressed him as being one of Duhring's disease and the fact that the trunk was free of lesions was no argument against such a diagnosis as such instances were rather common. The speaker called attention to the fact that eczema marginatum usually occurred in the groins and axillae and started as red, vesicular, circinate lesions which gradually became fused and festooned.

DR. POLLITZER agreed with the diagnosis of Duhring's disease and said that the fact that there were no lesions on the trunk was of little importance.

DR. LAPOWSKI insisted that this case was the textbook type of eczema marginatum of an aggravated form. The lesions consisted of circinate patches of vesicles and papules which spread and were very itchy.

DR. HEIMANN said that he believed that Dr. Lapowski was thinking of parasitic eczema and not eczema marginatum. Eczema parasiticum answered the description given by Dr. Lapowski but it did not answer the description of Dr. Wise's patient.

DR. MACKEE said that from Dr. Lapowski's remarks he imagined that Dr. Lapowski did not mean eczema marginatum but eczematized ringworm, resembling the cases shown by Dr. Ormsby at the last meeting of the American Dermatological Association in Detroit. An article on the subject was written by Ormsby and Mitchell and was a very excellent one. The lesions consisted of eczemalike patches on the backs of the hands and arms and also on the feet, and occasionally on other parts of the body. The margins were not sharp. The skin was thickened, scaly, and there were vesicles, papules and sometimes exudation. Sometimes the patches were solid and sometimes circinate. They varied in size but usually ranged between a dime and a quarter in diameter. There was more or less itching. In other words, one would hesitate in making a diagnosis of eczema but in all these cases Ormsby and Mitchell were able to obtain pure growths of the ringworm spores. In Dr. Wise's patient there was a history of recurrent attacks of grouped lesions. In other words, over a period of several years there were distinct remissions and exacerbations and the disease had occurred on the trunk. The speaker thoroughly agreed with the diagnosis of Duhring's disease.

DR. WISE said that the appearance of the lesions, the course of the disease, the subjective symptoms, etc., were in his opinion, those of dermatitis herpetiformis.

CHICAGO DERMATOLOGICAL SOCIETY

Regular Meetings, March 20, April 17, and May 15, 1917

WILLIAM ALLEN PUSEY, M.D., *President*

RECURRENT INFECTION OF UPPER LIP—BEGINNING "SOLID EDEMA." Presented by DR. PUSEY.

The patient was a man, aged 37 who had a swollen upper lip. Three days ago there had been an acute swelling with redness of the upper lip. Inside the nose there was an abrasion on the septum.

DISCUSSION

DR. FOERSTER thought it was a folliculitis.

DR. ORMSBY thought that the disorder had begun through infection in the nasal mucous membrane, the lip change being secondary to this. He would connect this with the group of cases reported in the German Archives in 1912 by Dr. Pusey, under the title, "Solid Edema of the Face," the first case having been recorded by Hutchinson, in 1883. He thought it might be an early case of that kind, and that repeated attacks of inflammatory reaction would eventually produce the Hutchinson type of solid edema.

DR. EISENSTAEDT asked if there was no marked interference with the drainage of the lymph occasioned by anatomic or inflammatory lesions.

DR. PUSEY agreed with Dr. Ormsby that the case was a beginning elephantiasis of the upper lip from recurrent attacks of cellulitis. There was an excoriation of the septum which furnished the probable atrium for the infections. There was no evidence of mechanical obstruction aside from that due to recurrent lymphangitis.

MULTIPLE BENIGN CYSTIC EPITHELIOMA, SHOWN AS A PROBABLE ADENOMA SEBACEUM. Presented by DR. ORMSBY.

The patient was a young woman, aged 26, who had had the disorder fifteen years. The lesions had slowly developed since their initiation, and none had disappeared; all that had ever occurred were still present. They consisted of small papules and nodules, ranging in size from that of a pinhead to a small

pea or larger, they were colorless, some being semitranslucent. They were grouped on the upper lip, on either side of the nose, and on the temples. Isolated lesions were scattered about the forehead and cheeks. Some telangiectasia was present over certain nodules, and there was one pigmented nevoid lesion in the eyebrow. There were no subjective symptoms. At the time of presentation, a radiodermatitis following radium treatment was present on the upper lip.

DISCUSSION

DR. WILE said the case impressed him at first glance as possibly one of epithelioma adenoides cysticum. He considered cases of this description difficult of diagnosis without microscopic findings, but he thought it belonged to that group of diseases.

DR. EISENSTAEDT agreed with Dr. Wile, but would leave out the expression "epithelioma." He thought it belonged to the class described as adenoma sebaceum.

DR. FOERSTER thought it was suggestive of adenoma sebaceum, but that the semiglobular character and the color were against this diagnosis.

DR. PUSEY stated the appearance of the case as a whole suggested to him that it was a multiple benign cystic epithelioma, rather than an adenoma sebaceum.

DR. STILLIANS had not thought of adenoma sebaceum on account of the lack of dilated blood vessels.

DR. ORMSBY said there were several dilated blood vessels present, and he believed it was an adenoma sebaceum because it began at an earlier age than was common for multiple benign cystic epithelioma, and, furthermore, no other members of the family were similarly affected. The grouping of the lesions about the angle of the nose was characteristic of adenoma sebaceum.

From the clinical standpoint in this case, he thought a positive distinction could not be made between the two disorders, and that the decision must rest on the microscopic findings, which he hoped to be able to obtain, but he believed that adenoma sebaceum was the more probable.*

PARAPSORIASIS. Presented by DR. ZEISLER.

The patient was a woman, aged 30, who had a generalized eruption of fourteen years' duration. It began on the palms and soles and subsequently spread over the entire body. With the exception of one remission of two years she had had the eruption constantly, with exacerbation in the spring and fall. The condition had been diagnosed by various competent observers as psoriasis and dermatitis exfoliativa. There was a generalized scaly erythrodermia with confluent patches on the face, neck and trunk and isolated lesions on the extremities, with considerable fine desquamation. The general health was not at all involved and the blood count normal. The patient had at first improved under the administration of thyroid extract and roentgen rays, but had suffered an acute exacerbation after four weeks. She was then given six autoserum injections and a 1 per cent. chrysarobin salve and there had been some improvement under this treatment. She was presented as an instance of a persistent, scaly erythrodermia, belonging to the groups of parapsoriasis cases.

DISCUSSION

DR. WILE did not think one could say definitely at this time just what the eruption was. He thought there was some justification for believing it was a psoriasis which had become generalized. Secondly, the case reminded him in one or two features of a stage in the course of pityriasis rubra of Hebra which had been modified by treatment. In favor of this there were distinct

* Note.—April 17; biopsy proved the growth to be a multiple benign cystic epithelioma.

areas of clear skin and distinct symmetry. He thought the extensive confluence of the eruption, amounting almost to an exfoliative dermatitis, spoke against the case as being one of parapsoriasis.

DR. EISENSTAEDT thought it had been a psoriasis to start with but that it had progressed to some other condition, possibly belonging to the dermatitis exfoliativa group.

DR. HURLBURT thought the case had been modified by treatment until it did not belong to any special type.

DRS. FOERSTER and ORMSBY agreed with Dr. Wile.

DR. PUSEY was not able to see evidence of psoriasis in the case and thought the process was too extensive to be representative of parapsoriasis. The patient had a general exfoliative dermatitis with a good deal of scaling. The skin was leathery and the lower lids showed ectropion, which indicated that there was a chronic inflammatory process that was drawing the lids down. This ectropion suggested Hebra's pityriasis rubra, and the other features of the case seemed to him to fall in more probably with that diagnosis than any other.

DR. ZEISLER said that when the patient was first seen there was not the diffuse redness present, and that he believed it had occurred as the result of the treatment.

PEMPHIGUS. Presented by DR. SHAFFNER.

The patient was a little girl, aged $8\frac{1}{2}$ years. The condition had been present for about one and one-half years. The speaker had seen her a year ago and not again until a few days before she was presented. The mother claimed that the condition followed a vaccination done three months prior to the eruption. When first seen there were lesions in the mouth but there had been none since that time. There was no itching. There had been no improvement in the condition since the time of the first examination.

DISCUSSION

DR. EISENSTAEDT said the case belonged to the pemphigus group, possibly being an atypical case of dermatitis herpetiformis. He thought the large bullae all arose from an inflammatory base and there had been periods when the itching had been rather marked, and then remissions of the itching. He thought the case did not present the complete remissions which were characteristic of dermatitis herpetiformis.

DR. ORMSBY thought it was a case of bullous dermatitis but that it might belong to the pemphigus group.

DR. PUSEY thought the case was a border line case between pemphigus and dermatitis herpetiformis. He thought that vaccination had to be considered an exciting cause of some of these systemic cases of bullous eruption.

DR. FOERSTER said that he had seen an extensive erythema iris develop within forty-eight hours following vaccination, which was unquestionably due to the vaccination.

DR. SHAFFNER thought it was not a dermatitis herpetiformis, and as there had been a three months' interval between the vaccination and the eruption, he did not believe that was the cause of the trouble.

GRANULOMA PYOGENICUM OF THE SCALP. Presented by DR. STILLIANS.

The patient was a woman, aged 35, who had noticed a tumor on her scalp about two months previously. She did not know how it originated and it had caused no subjective symptoms but interfered with combing her hair. The tumor was on the right parietal region and was about 0.7 cm. in diameter, flat and pedunculated, covered by dark red, thin skin. Below the right mastoid was a mass of swollen, tender glands, about hazelnut size, not very hard.

DISCUSSION

DR. SHAFFNER considered it a low grade infection such as he had seen a number of times in women who irritated the scalp in combing the hair.

SEGMENTAL NEVI. Presented by DR. E. P. ZEISLER.

The patient was a man, aged 24, and was presented as a dermatologic curiosity. The condition had been present since birth, and as far as he knew there had been no special change in the last few years. The lesions consisted of wartlike nevi distributed along the course of the cutaneous nerves in a segmental fashion, with the peculiarity that the nevoid masses could be easily detached, leaving a reddened area underneath.

DISCUSSION

DR. ORMSBY considered the case extraordinary, on account of the facility with which the lesions could be removed. In many such cases, the lesions were very adherent, but these were soft, granular and sebaceous, and only lightly attached to the skin with a nevus-like arrangement.

CASE FOR DIAGNOSIS. Presented by DR. MACKEY.

The patient was a child, aged 10 years. Eight months ago she developed a patch on the left elbow and later one on the leg. There was mild itching. New areas had rapidly formed, until at the time of presentation there were symmetrical lesions with zoniform arrangement on the trunk, and thickened, scaling patches on the forearms, about the nucha and about the ears. There had been no treatment.

DISCUSSION

DR. WILE said the lesions behind the ears and those on the ears certainly could not have been associated with parapsoriasis; they were typical seborrheic areas and yet the lesions on the body were typical of the Brocq type of parapsoriasis. He thought both conditions were present.

DR. ORMSBY thought it was interesting to see such a young patient with a low-grade inflammatory process with all the appearance of a parapsoriasis of the plaque type. The lesions had been present for a long time and there had been no change. Those behind the ear were of the ordinary type seen in dermatitis seborrheica, and it was difficult to connect these with the plaques on the trunk. He believed the case represented a parapsoriasis of the plaque type.

SYPHILIS RESEMBLING LUPUS ERYTHEMATOSUS. Presented by DR. McEWEN.

The patient was a man, aged 30, who presented lesions resembling lupus erythematosus involving the nose, the right shoulder and the interscapular region. There was an obscure history of a chancre some years previously, without subsequent manifestations until the present lesions appeared about four years ago. The gross appearance of these lesions was so like those of lupus erythematosus that the case, though probably syphilitic, was deemed worth showing to the members of the Society. There was a crusting lesion on the left arm due to vaccination.

DISCUSSION

DR. ORMSBY considered the case as one of syphilis of an interesting type. Not infrequently, there was a late syphilid which spread peripherally and was not made up of individual nodules. It scaled at the advanced margin, presenting a picture somewhat like that seen in ringworm. In this particular case, some of the lesions resembled the lesions of lupus erythematosus.

Answering the question of Dr. McEwen concerning the location of patches of erythematous lupus, Dr. Ormsby stated that he recalled the case of a woman who had lesions that extended some distance down the back between the shoulders, and also on the chest, which were of the classic discoid type of lupus erythematosus. In this case there were no lesions on the hands or forearms.

DR. SHAFFNER thought the interesting point of the case was that the man was vaccinated just two weeks previously and despite active syphilis, there had been no effect on the vaccination. He had been taught never to vaccinate in the presence of active syphilis for fear of producing a gummatous lesion.

DR. MCEWEN stated that the case was sent into the county hospital as a lupus erythematosus but it appeared to him to be syphilis. He had never seen a lupus erythematosus involving the nose with other lesions as far down on the back as this case presented. He asked if any of the members had ever observed a distribution of lupus erythematosus in these regions with freedom from lesions on other portions of the body.

SYPHILIS WITH ERUPTION RESEMBLING TUBERCULID. Presented by DR. PARDEE.

The patient was a man, aged 21, single, a Russian by birth, having been in America for five years. He presented an eruption which appeared first on the forehead three months previously, and a few weeks later extended to the shoulders, back, and a few scattered spots on the abdomen. At the same time a sore appeared on the penis which lasted two weeks (no treatment), and there was a history of a previous sore on the penis about eight years ago. A Wassermann test, March 19, gave a positive reaction.

DISCUSSION

DR. WILE thought one had to differentiate here between a syphilid and a folliclis, and that sometimes the diagnosis between these conditions was difficult. There were lesions in this case which were grouped and much like those of a follicular syphilid, and there were lesions on the body represented by pigmented scars which might have been due to syphilis but might as well have been due to a tuberculid. On the basis that this man had on his forehead lesions which were not syphilitic but which resembled those of acne varioliformis or acne necrotica, he believed the case was one of folliclis with incidental syphilis.

DR. ORMSBY said that syphilis had the ability to produce lesions that imitated many nonsyphilitic processes, and in view of the fact that syphilis was present in this case he would not be surprised to see the whole process clear up after antisyphilitic treatment was instituted.

DR. SHAFFNER said he had seen the case a week previously and the symptoms had cleared up remarkably since that time. He thought it was probably a papulonecrotic tuberculid on a syphilitic basis.

TUBERCULOSIS OF THE MUCOUS SURFACE OF THE UPPER LID CURED BY RADIUM. Presented by DR. PUSEY.

The patient was a man, aged 40, who had had tuberculous glands of the neck. An affection on the under surface of the upper right eyelid had been present for a long time. When first seen by the speaker there was a mass of excrescences which were slightly elevated and soft and showed a little ulceration; the diagnosis made by competent ophthalmologists was tuberculosis of the mucosa of the lid. He was treated with radium, applied to the under surface of the upper lid, with practically complete recovery. The speaker said he had often used radium covered with a rubber dam on the eye. He had treated an epithelioma on the conjunctiva with absolute wiping out of the lesion, and had

treated a similar lesion at the border of the cornea, giving twenty minute applications. He had also treated a number of lesions on the under surface of the lids in this way very satisfactorily. The applicator covered with rubber produced an erythema in twenty minutes on a normal skin

GRANULOMA PYOGENICUM OF THE LIP. Presented by DR. STILLIANS.

The patient was a man, aged 27, by occupation a clerk, in good health. Two months before presentation, after biting his lip he noticed that the skin paled, and soon afterward a small growth appeared which slowly increased. This was removed about three weeks before presentation by fulguration, but recurred.

The lesion was a flat topped papule 0.7 cm. in diameter and about 0.2 cm. high at the center of the lower lip, well inside the mucocutaneous juncture. The border was covered by epithelium but the center was composed of granulations.

DISCUSSION

DR. WILE thought the case was probably an infection similar to other cases which had been shown before the Society, and followed a trivial injury. It might be spoken of as an infected granuloma or some such banal infection.

DR. ZEISLER thought that the lesion might be a granuloma pyogenicum.

DR. STILLIANS believed it was a granuloma pyogenicum as the skin had grown up around the lesion, leaving a central lesion with the granulations showing in it.

URTICARIA PIGMENTOSA. Presented by DR. LIEBERTHAL.

The patient, aged 39, had been married twenty years, and had never been pregnant. As a girl she had always been well, but since she was married she began to suffer from habitual constipation and dysmenorrhea. About eleven years ago, in the summer, her face broke out, and soon after the eruption spread over the body. The latter showed remissions and exacerbations, independently of menstruation or season, and had never left her altogether. It burned and itched. She felt debilitated generally and complained of pain in cold and changeable weather.

DISCUSSION

DR. SHAFFNER said he had presented this case for the first time before the American Dermatological Society and the diagnosis then was an urticaria pigmentosa but the biopsy showed no mast-cells. The condition had not changed much; she had had some urticaria on irritating the skin, but no itching.

DR. ORMSBY said that he had shown a case of a similar type at the last meeting of the Society, which he considered an urticaria pigmentosa, and the biopsy in that case showed no mast-cells. He wondered if there were not two types: the juvenile type, in which the mast-cells were characteristic; and an adult type, in which there were no mast-cells. He thought that within a short time a report would be made on these two groups. He said that the type of lesion in this case differed from that presented in his case, but he believed it was an urticaria pigmentosa.

DR. STILLIANS thought it would be very difficult to separate the cases into two types. A case which Dr. Pusey had shown had begun in adult life and exhibited a large number of mast-cells.

DR. LIEBERTHAL believed Dr. Ormsby was right; in his estimation there were two types which differed from each other. The true urticaria pigmentosa was a disease beginning in infancy, and the urticaria perstans with pigmentation in later life. The absence of mast-cells did not exclude the diagnosis of urticaria pigmentosa. In the early literature a definition between the two types had been made. He said he had not made a thorough examination of this patient, but she was complaining of various gastro-intestinal disturbances,

pains, and of dysmenorrhea, and he intended to have her thoroughly examined in every respect and should not be surprised if she recovered after being subjected to systemic treatment.

WHITE SPOT DISEASE (?). Presented by DR. E. P. ZEISLER.

The patient was a man, aged 57, a laborer by occupation, who presented atrophic, white, scarlike spots on the chest and on the back which had been present for many years. The possible diagnosis of "white spot disease" was suggested.

DISCUSSION

DR. SHAFFNER believed the lesions were scars which had been present for many years and had flattened out considerably.

DR. ORMSBY thought the case was neither morphea guttata nor lichen planus atrophicus of Hallopeau. In guttate morphea the lesions had a slightly yellowish tinge, and a certain amount of thickening was present. There was also a tendency toward grouping. In the atrophic lichen planus, the lesions were dead-white and were composed of angular papules, in which black keratotic plugs were situated. In the present case, there was simply an atrophy, which apparently was the end-result of a long-past inflammatory process.

ALOPECIA. Presented by DR. ORMSBY.

The patient was a man, aged 43, who had a circular patch of partial alopecia on the scalp. The lesion appeared three years ago in a small area in which the hairs broke off, remained short and were atrophic. On treatment it seemed to improve. The hair grew a little and then the lesion recurred and had been about the present size for some time past. On presentation there was an area of partial alopecia the size of a silver quarter, in which atrophic hairs were present, each being about one-quarter inch in length. In the area intense itching was present.

DISCUSSION

DR. ORMSBY said the patient was shown before the meeting of the American Dermatological Association in 1914, and Dr. Jackson said the condition corresponded with two cases he had seen of atrophy of the hair, formerly undescribed. This was the third case of that type. He only knew it was atrophied from a clinical standpoint, as no microscopic work had been done. There had been no change in the condition in five years. The hair remained short and fine and he considered it an unusual case of atrophy.

CASE FOR DIAGNOSIS. Presented by DR. SENEAR FOR DR. PUSEY.

The patient, a man, aged 39, was first seen six days ago. The eruption had appeared about two days before that time, beginning with a patch of small reddish papules on the forearm. Gradually this eruption spread up and down from this point. The eruption was somewhat more erythematous when first seen. The patient had been using a 3 per cent. ichthyol ointment.

The eruption was striking because of its linear distribution. Consisting of small, reddish papules, or simply patches of dermatitis, it extended along the extensor surface of the arm and forearm and passed over the shoulder to the scapula. Here it split to form two broader branches, which passed across the scapula to the midline of the back at about the level of the sixth and seventh thoracic vertebrae.

DISCUSSION

DR. McEWEN stated that he was unable to come to a definite conclusion, but had thought of the possibility of an atypical lichen planus, and, secondly, of a feigned eruption.

DR. SENEAR stated that they had not made a diagnosis at the office. He had gone into the question of a feigned eruption very carefully and was unable to get any confirmation along that line.

DR. HARRIS thought the case belonged to the same group as some patients shown previously by Dr. Quinn and himself. Most of the men thought it was a lichen planus, but he believed it was a linear dermatitis, or, as the Germans say, a "strichförmige" eruption.

CASE FOR DIAGNOSIS. Presented by DR. HARRIS.

In this patient, a man, aged 25, the condition began when he was 2 years of age. The eruption appeared and disappeared, occurring especially at areas of pressure. There was no subjective sensation. The patient was shown on account of the distribution of the lesions. The axillary folds, the bends of the elbows, a plaque on the abdomen where the trousers made pressure, and areas over the scapulae showed a thickening and brownish discoloration of the skin and some scaling.

DISCUSSION

DR. ORMSBY said that most cases of acanthosis nigricans were accompanied by some malignant neoplasm internally in the adult, but this was not true in the juvenile type. These cases recovered and were not accompanied by neoplasms. He cited a case he had seen when the patient was about 14, which was a classic case, and he saw the patient again six years later, when he had entirely recovered.

DR. WILE thought some of the members might have an idea that the case was one of acanthosis nigricans. He did not think it was, for although the clinical picture was one of parakeratosis and pigmentation, the clinical picture, which we had definitely established for acanthosis nigricans, was an eruption of not such long standing as in this case, and almost invariably associated with malignant neoplasm. That picture should be kept as a separate entity. Furthermore, he did not think the eruption was sufficiently uniform to class it with acanthosis nigricans. The cases he had seen with Dr. Politzer, and one with Dr. Gilchrist, involved the trunk, the axillae, the scrotum and genitalia. The patient presented here had lesions on the backs of the hands. The speaker had no diagnosis to offer; his contribution was of a negative nature.

DR. HARRIS thought the diagnosis lay between two things, an arsenic eruption and an ichthyosis. The patient had a skin disease, which began when he was 2 years of age, and did not know whether he had taken any arsenic or any other medicine in the early stages.

HYPERKERATOSIS OF THE PALMS. Presented by DR. EISENSTAEDT.

The patient was a man, aged 32, who had had the condition of the palms since birth. There were four children in the family, the patient and one sister being affected; one brother and one sister were free; the mother was affected and one of her parents, the patient did not know which one. The lesions consisted of hyperkeratosis of the palms and soles.

DISCUSSION

DR. EISENSTAEDT said that under the free use of practically any salve the man kept his hands in sufficiently good condition to earn his livelihood.

PECULIAR DERMATITIS IN A LEUKEMIC. Presented by DR. STILLIANS.

The patient was a boy, aged 9 years, from the service of Dr. Strauch at Cook County Hospital. He had been getting roentgen ray treatments over the spleen and benzol internally for the past ten months for a splenomyelogenous leukemia. The skin eruption had been present only about two weeks. It consisted of sharply defined, dull red, hyperkeratotic and slightly scaly patches, very slightly

raised above the general level of the skin, located on the palms, soles, backs of hands and feet, in the bends of the elbows and knees and on their extensor surfaces, and beginning patches about the umbilicus and along the iliac crests. Behind the knees the eruption could be seen to occur along the lines of pressure, as the skin wrinkled on flexion. It was exactly symmetrical and caused no subjective symptoms.

DISCUSSION

DR. IRVINE thought the distribution of the lesions was somewhat unusual, but he had seen cases accompanied with this dermatitis in which the hands and feet were especially involved and the folds of the elbows and knees were very much worse than the rest of the skin; that is, there was a general dermatitis which was simply accentuated in these places. He believed it was a dermatitis accompanying a leukemia.

DR. McEWEN asked if it was believed that the benzol had any relation to the eruption.

DR. SHAFFNER said he had thought of the possibility of pityriasis rubra pilaris in connection with the case.

DR. STILLIANS said that he had to thank Dr. Strauch for the loan of the patient. All were interested in the case as to the possibility that the eruption might be caused by the benzol. The drug had been stopped, as the reduction in white cells had reached a low enough figure for the present, and it would be interesting to watch the eruption after the cessation of medication. Dr. Hein, the intern on the dermatological service at the hospital, had looked up the impurities of benzol and found them to be anilin and nitrobenzol.

ALOPECIA. Presented by DR. SHAFFNER.

The patient was a woman, aged about 30, who presented a lesion of the scalp which had been present for about ten months. There was no ulceration and no other lesions on other parts of the body.

The lesion was an oval shaped patch of alopecia, with some telangiectasis and atrophy of the scalp, extending over an area about the size of a dollar.

DISCUSSION

DR. MITCHELL said the case appealed to him as one of syphilis.

DR. HARRIS thought it might be a case of morphea, as the lesion had an indurated border.

DR. ORMSBY thought it was either a linear morphea or a case of lupus erythematosus.

DR. McEWEN agreed with Dr. Harris as to the probability of a morphea.

DR. SHAFFNER believed there was nothing against the diagnosis of a lupus erythematosus, but had never thought of morphea in connection with the case.

LUPUS VULGARIS. Presented by DR. HARRIS.

The patient was a man, aged 39, who had had lesions for fourteen years, which began on the upper lip. He was treated with the roentgen ray four years ago and the lesion disappeared but returned three years later at the site of the original involvement, and had been spreading for a year. The lesion consisted of an elevated papillomatous area with a spreading border, beginning at about the middle of the lower lip and extending around the side of the chin up to the left nostril and over the tip of the nose around and over the right nostril and beyond the upper lip.

DISCUSSION

DR. MITCHELL thought the case was a blastomycosis.

DR. BAER said the case impressed him as being a lupus vulgaris.

DR. IRVINE thought the lesions of the chin looked like a blastomycosis, but that one should also consider a lupus vulgaris.

DR. FOERSTER thought it was lupus vulgaris clinically, substantiated by Dr. Harris' negative findings as to blastomycosis. The case he had seen in negroes had been of the rapidly advancing type, differing from this one.

DR. HARRIS believed the case to be a lupus vulgaris.

LESIONS OF THE NOSE. Presented by DR. HARRIS.

The patient was a man, aged 27, a Syrian, who had been in this country for five years. One year after arrival the lesions of the nose appeared.

The disease consisted of a destructive, proliferative lesion of the septum, resulting loss of the entire septum, and some wartlike processes where it involved the cutaneous surface.

DISCUSSION

DR. McEWEN thought the diagnosis was tuberculosis as against syphilis.

DR. WILE thought the case was one of tuberculosis, but there was something quite unusual about it. It had attacked the bony septum as well as the cartilaginous portion and resembled in its destructiveness a syphilitic process. The nodules right at the edge of the ulceration, he thought, were characteristic of tuberculosis.

DR. HARRIS believed the case to be a tuberculosis, with a reservation in favor of gangosa. On account of the patient being a Syrian, he thought a biopsy should be made.*

DR. ORMSBY stated that Dr. Mitchell had made some sections of the case which was presented before the March meeting as an adenoma sebaceum or a multiple benign cystic epithelioma and they were on exhibition. The sections were typical of multiple benign cystic epithelioma.

CASE FOR DIAGNOSIS. Presented by DR. SENEAR.

The patient was a boy, aged 11 years, who was having his annual attack of pruritus, which developed each year as soon as the weather was warm. He had had these attacks each year since birth and, according to the father, they cleared up as soon as the weather became cool in the fall. This attack had been present for about two months. There were no lesions, other than those due to scratching, when he was first seen, but there were numerous lesions with an urticarial element when presented.

DISCUSSION

DRS. SHAFFNER AND QUINN thought it was a lichen urticatus.

DR. WAUGH believed it was an urticaria. There were two or three fairly typical urticarial lesions to be seen.

DR. PUSEY said he could not agree with the diagnosis of lichen urticatus. That was a chronic urticaria of children, with which we had become familiar through descriptions of English dermatologists, the disease being very common in England. It was distinctly an urticaria. This case was a dermatitis from scratching, and the history was definite that it was a summer eruption, appearing in the spring and getting well when winter came on. He thought the case must be classed as a summer dermatitis—a dermatitis estivalis.

SYMMETRICAL KERATODERMIA. Presented by DR. E. P. ZEISLER.

The patient was a woman, aged 43, with a symmetrical keratodermia of the palms and soles, which began in early childhood. The palmar surfaces were markedly thickened, roughened and yellowish green. There was an inflammatory areola which spread to the sides of the fingers and knuckles. There was also

*The biopsy subsequently showed tuberculosis.

an associated hyperidrosis. The patient was married and had four children, none of whom had developed this condition.

DISCUSSION

DR. McEWEN thought it was a remarkable case and wondered whether there was any possibility of an unrecognized source of arsenic poisoning.

DR. QUINN believed the duration of the lesions would rule out arsenic, as the woman had had the condition since childhood.

DR. HARRIS considered it a symmetrical keratoderma.

DR. MITCHELL said he had seen a boy with Dr. Ormsby several years ago who presented exactly the same condition on the backs of the hands, along with keratoderma, well defined and perfectly symmetrical, but in that case the lesions extended up further.

DR. PUSEY stated that he had some photographs of a case of keratoderma where the lesions extended well up on the sides of the hands and wrists, and thought the extent of the eruption in this case would not rule out the diagnosis of congenital keratoderma.

PARAPSORIASIS EN PLAQUES. Presented by DR. MITCHELL.

The patient was a little girl who was presented at the March meeting. She was shown again to demonstrate the results of treatment. She had been given nothing aside from sulphur and salicylic acid ointment, which was applied daily with almost complete disappearance of the lesions.

DISCUSSION

DR. MITCHELL said that when the patient was shown at the past meeting there was some discussion as to whether it was parapsoriasis en plaque or seborrheic dermatitis. She was shown again to demonstrate the results of treatment. The fact that the condition had yielded to a simple salicylic and sulphur ointment demonstrated that it was probably not parapsoriasis.

VITILIGO AND PIGMENTARY SYPHILID. Presented by DR. McEWEN.

The patient, a woman, aged 17, was infected with syphilis about five months ago. On admission to the County Hospital, one month ago, there were numerous condylomata lata about the genitalia and the pigmentary changes about the neck, which were still present. These consisted of one or two large white areas surrounded by zones of hyperpigmentation, the whole being surrounded with a pigmentary mottling, which consisted of a mesh work of pigment enclosing islands of white skin; a similar appearance, in less degree, was present about the axillary folds.

The patient stated that when she was a child she had "eczema" on the neck, which left the large white areas. There was no evidence of atrophy.

The case was presented as an original vitiligo, complicated by a recent pigmentary syphiloderm.

DISCUSSION

DR. McEWEN said that, according to the patient, the large white spots had been there as long as she could remember; when a child she had "eczema" on the neck and those spots were left. She said the other, namely, the mottled lesions, had appeared recently. When she entered the hospital she presented many condylomata lata and there was no doubt as to the syphilitic infection. He believed that the older spots were lesions of vitiligo, and that the more recently appearing macular changes were those of a pigmentary syphilid. He thought the case presented a curious and difficult problem in diagnosis.

DR. PUSEY agreed with Dr. McEwen's view that the leukoderma on the back of the neck, at the border of the hair, was distinct from the syphilitic leukoderma. He thought that the following question that Dr. McEwen had pro-

pounded was interesting and suggestive: Would a leukoderma in a patient predispose him to a syphilitic leukoderma? Patients with a leukoderma already had a pigmentary disturbance, and it was a fair surmise that with such a disturbance already existing, it might predispose the patient, if he acquired syphilis, to syphilitic leukoderma. The condition in this case reminded him of a somewhat similar combination which he had shown before the Society a few years ago. The man had alopecia areata and syphilitic alopecia. The combination in his case was conclusively established at the meeting by the fact that Dr. Anthony recognized the patient as one whom he had seen several years before with alopecia areata, before he had acquired syphilis.

DERMATITIS HEMOSTATICA WITH FOLLICULAR PURPURA Presented by DR. E. P. ZEISLER.

The patient was a sausage maker by occupation, aged 39, who had had the eruption on his lower extremities, below the knees, for the past six weeks, and had a similar eruption a year ago. The lesions consisted of follicular purpuric spots and larger confluent areas of dermatitis around the ankles. There were associated varicose veins.

DISCUSSION

DR. McEWEN believed the follicular hemorrhagic tendency could be explained on the ground of some internal condition, probably involving the kidney. He thought the remainder of the lesions were due to the varicose veins and the trauma from scratching.

DR. HARRIS thought it was a dermatitis of the nature of an eczema and accepted Dr. McEwen's suggestion of the possibility of kidney trouble. The peculiar thing about the case was the sharp outline of the patches, which looked as if there had been an old psoriasis. The man complained of intense itching, which would account for the follicular hemorrhage.

DR. MITCHELL said he had recently seen a patient who presented much the same lesions but not so pronounced, and in that case there was a severe nephritis. After rest in bed the condition cleared up very promptly, but reappeared after the patient was on his feet again for a short time.

DR. EISENSTAEDT said the hypostatic condition should be emphasized. The man was on his feet all the time, and that would have some influence on the trouble.

DR. PUSEY thought the case might be explained altogether on the bad condition of the circulation in the man's leg—a hypostatic congestion. He might have congenitally bad blood vessels which had become worse in the legs on account of constant standing. He thought it was not necessary to invoke a nephritis to account for the patches. As to the sharp outline, that was seen not rarely in hypostatic dermatitis.

CASE FOR DIAGNOSIS. Presented by DR. HARRIS.

The patient, a woman, aged 25, had had an attack of influenza about four months previously. After leaving the hospital a ringed eruption appeared on the right cheek, which at the time of presentation was about 4 inches in diameter. After the lesion on the cheek appeared she developed an eruption on the hand.

The lesion on the cheek had an erythematous outer border, the inside being somewhat lighter and showing slight scaling. On the fingers and hands were red, irregular spots, which appeared one month after the eruption on the face. There were some vesicles and telangiectases.

DISCUSSION

DR. McEWEN thought it was an unusual case. His first diagnosis would be erythema multiforme, but he would want to be sure that syphilis was ruled out.

DR. QUINN believed it was an erythema multiforme of the hands, but thought the lesions on the cheek resembled lupus erythematosus.

DR. SHAFFNER considered it a toxic erythema.

DR. STILLIANS considered the case a lupus erythematosus because of the distinct scarring in some of the lesions on the fingers. The vesicles present would not rule out lupus erythematosus.

DR. MITCHELL said the case reminded him of that of a young lady from Iowa, who had perfectly symmetrical lesions on the palms and fingers and also on the face over the nose and cheeks, with a few lesions on the feet which were not symmetrical and were less marked. The condition had been present for more than a year and the general health was very good. There was marked circulatory disturbance of the chilblain type and the patient gave a mild reaction to tuberculin.

DR. WAUGH considered it an erythema multiforme.

DR. PUSEY was reminded of a case from Iowa, seen ten years ago, in which a woman who had tuberculosis also had lupus erythematosus on the face. On the hands the patient had an eruption which could only be described as a toxic erythema; it occurred particularly around the nails and was associated with a good deal of atrophy and destruction of tissue. He had seen a number of cases, which made him believe that lupus erythematosus was a toxic condition, analogous to erythema multiforme. He thought it was not an unknown picture to have erythematosus lupus with vesicular lesions on the hands.

DR. HARRIS said he had not examined scrapings from the lesions, but he believed it was an erythematosus lupus.

CASE FOR DIAGNOSIS. Presented by DR. McEWEN.

The patient was a boy, aged 17, who worked in a box factory. He presented lesions which had appeared about seven weeks previously on the face and two weeks later on the hands. The lesions on the face had never presented the broken-down condition which was present on the hands. There were also lesions on the feet, buttocks, thighs and elbows.

The lesions consisted of papulovesicles, many of which were hemorrhagic and gangrenous. Those on the hands and feet showed depressed, crusted centers, which appeared very much like vaccine vesicles.

DISCUSSION

DR. HARRIS said when he first saw the patient the distribution of the lesions made him think of an erythema multiforme. When he saw the lesions on the buttocks he thought of a dermatitis nodularis necrotica. He thought the condition of the face was originally the same as the other lesions.

DR. LIEBERTHAL thought it was a case of impetigo.

DR. QUINN considered it a pustular infection similar to a folliculitis.

DR. McEWEN thought the first thing to consider was an erythema multiforme with necrosis; then the possibility of a chronic tuberculid. He had seen somewhat similar conditions following measles and scarlet fever, but in this case no history of a recent infectious disease could be elicited.

DR. PUSEY thought he had never seen a necrotic lesion in an exudative erythema. He had seen hemorrhagic bullae, but had never seen the base undergo solution as in this case. He thought the case was not an erythema multiforme. The patient was poorly nourished and had a very bad peripheral circulation. He believed the case was one of varicelliform erythema developing in a bad skin, and was analogous to the cases following measles and scarlet fever, but was not so acute as in those cases because it was due to a chronic underlying condition. The lesions on the backs of the elbows, he thought, would agree with this view. He had seen ecthyma on the legs, which was very much like this.

DR. WAUGH thought it might be a *hydroa estivale*.

DR. MITCHELL said if the lesions had been of a little longer duration, he would have thought of a tuberculid.

DR. STILLIANS was reminded by this case of a woman patient at Cook County Hospital, who had several large, deep areas of gangrene due to embolism. She died of miliary tuberculosis. The only case of so-called gangrenous erythema multiforme that he had seen was very superficial and had no lesions approaching in depth those of the case presented. He did not think the case an erythema multiforme.

ECZEMA. Presented by DR. QUINN.

The patient, a man, aged 46, was a native of England, a tinsmith by occupation, who had had the same trouble for thirteen years. The head, neck and arms were involved. There was an intense pruritus and most of the lesions were produced by scratching. He gave a history of persistent constipation.

DISCUSSION

DR. McEWEN said the man was formerly a patient of Dr. Hyde's and he had seen him in 1911, when the condition was fully as bad as shown on presentation. The patient had stated that he attributed part of his trouble to the use of a sulphur ointment that was too strong. The speaker believed that eventually it would be found to be due to a staphylococcus infection, and that the best hope of relief lay in the making of a vaccine. The whole course of the disease had been analogous to several that had been treated at the Central Free Dispensary, in which the staphylococcus had been found and a vaccine prepared from the culture. Relief and cure had been effected by vaccination. He thought the case represented a group which was not clearly established as to etiology. In the old days it would have been called a dermatitis seborrheica.

DR. HURLBUT had seen the case a year ago, when it was much worse than at the time of presentation, but had never seen anything to suggest staphylococcus infection. It had been treated as an eczema.

DR. HARRIS thought it was a chronic eczema of a toxic origin. He thought there was probably some internal trouble which would account for it.

DR. PUSEY said he had seen many of these cases of chronic eczema of the face which were similar to each other. He agreed with Dr. Harris that they were chronic eczemas of toxic origin. He thought in time some of them would be put in a clinical group by themselves. He had always felt that they were due to some internal disturbance which was at present beyond discovery. He was interested in the staphylococcus idea: (1) that it was due to that infection, and, (2) that vaccines would cure it.

DR. QUINN said the man was constantly complaining of trouble with his bowels. He had seen him two weeks previously in the hospital, when he was much worse. He had been taking a bath every day and had been fed fairly well. He believed that most of the trouble was due to some gastro-intestinal disturbance.

CASE FOR DIAGNOSIS. Presented by DR. LIEBERTHAL.

The patient was a man, aged 32, a painter by occupation, married and the father of three healthy children. He had always been well except for an attack of typhoid fever three years ago and one of rheumatism last winter. He never was subject to skin diseases. About two years ago he noticed little red spots on the left cheek; the skin underneath soon became hard, the spots gradually increased in number and the hardening increased in extent in all directions. Swelling of the face appeared and increased in intensity; the left lower eyelid began to swell two weeks before presentation. There was no pain, spontaneously or on pressure, and there were no constitutional symptoms of any kind.

DISCUSSION

DR. HARRIS thought it was not an actinomycosis, but a cellulitis of the cheek, possibly due to some of the organisms in the mouth.

DR. PUSEY believed there was a focus of infection somewhere in the mouth or nose, and as a result he had the cellulitis of the face and was going on to a condition of "solid edema" of the face.

DR. LIEBERTHAL said he had seen the case two days previously for the first time. Actinomycosis could be ruled out; there was no infiltrated connection between the lesions on the face and on the neck; and in a case of two years' duration there should be some focus of softening. In cellulitis a continuous infiltration would be found and no separate lesions. The history revealed that at first there appeared swelling and red spots on the cheek. The latter became then diffusely red and very hard. A few months ago red spots appeared on the left side of the neck. Under some of them the skin and subcutaneous tissue was very hard; others again presented discoloration only. These indurated spots as well as the simple spots of the neck were separated from the infiltrated cheek by a broad band of normal tissue. The hardness and swelling of the cheek extended throughout all the tissues down to the mucosa.

The speaker suggested the diagnosis of scleroderma.

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meeting, April 13, 1917

FRED WISE, M.D., *Chairman*

LICHEN SCROFULOSORUM. TUBERCULOSIS CUTIS. Presented by
DR. PAROUNAGIAN.

The patient was a male adult, who had been shown before the Society several times previously and who was again presented by the exhibitor, to let those gentlemen who had not seen the case observe the lichen scrofulosorum lesions of the body. The speaker said he wanted to get the opinion of some of the men about roentgen-ray therapy in the tuberculous condition of the nose.

DISCUSSION

DR. WEISS said he thought that lichen scrofulosorum lesions faded spontaneously.

DR. SATENSTEIN said he had examined tissue from this case and found a typical lichen scrofulosorum. It was a well known clinical fact that these lesions were more or less transitory. The last time the case was presented, the lesions were erythematous, which the speaker attributed to the salvarsan and iodids the patient was then getting.

DR. WISE said he thought it was the consensus of opinion that the roentgen ray should be used in cases of this type of verrucous tuberculosis of the nose.

ERYTHEMA PERSTANS FOLLOWING INGESTION OF PHENOL-PHTHALEIN. Presented by DR. HOWARD FOX.

The patient, Mrs. J. T., aged 27, was born in Russia. She had always enjoyed good health previous to the present illness. Her menses began at 14 and had always been regular and normal. She had been married eight and a half years and had one living, healthy child of 7 years. Thirteen months ago her second child was born, but died two days after birth. She had suffered from time to time from an eruption that appeared suddenly as red, itchy, more or less elevated spots disappearing in about two days, and being followed by

persistent pigmentation. The first attack appeared before her last pregnancy. Two attacks occurred during this pregnancy. Before each of the last two attacks appeared, she stated that she had taken a single "Ex-Lax" tablet and that a minute or two afterward the eruption suddenly appeared. She did not remember whether the first two attacks had followed the ingestion of any medicine. After the first attack the lesions disappeared entirely in two days but after the subsequent ones, pigmented spots remained and had not disappeared up to the time of presentation. The number of spots also had increased with each successive attack. On examination she presented about sixty dark, brownish, rounded macules, varying from a bean to a silver dollar in size. The largest measured 2 inches in diameter. There was no infiltration, no evidence of scratching, no oozing and no anesthesia. Some of the spots were smooth, others slightly scaly. The patches were most profuse on the back. They were also present on the face, neck, arms, forearms, backs of the hands, chest, abdomen and thighs. The patient was a pronounced brunette with black hair and brown eyes. She was of medium height, appeared to be in good health and weighed 135 pounds. The urine showed nothing abnormal. The Wassermann reaction was negative. The report of the biopsy had not been received.*

DISCUSSION

DR. WALLHAUSER said he would like to ask whether any of the gentlemen present had ever noticed a reaction following phenolphthalein. He had used it very extensively, but had never noticed any ill effects.

DR. SATENSTEIN said he had seen a number of individuals with practically the same type of lesions; erythematous lesions, which later took on the picture of an erythema multiforme iris. The lesions slowly retrogressed and the inflammatory symptoms disappeared, leaving pigmentation. When a recrudescence occurred, it was always at the site of the original lesion. Biopsies of these cases, studied very carefully, revealed absolutely no evidence of an urticaria pigmentosa, namely, mast cells, but a picture of erythema perstans with free pigment.

DR. WISE said, as Dr. Satenstein had stated, he thought this condition erythema multiforme, in which the patches, instead of involuting, did not resolve. The histologic picture resembled that of erythema multiforme. The speaker said the question of recrudescences, occurring in exactly the same spots, was interesting, but that the lesions also occurred aside from the old spots. He did not think the phenolphthalein was the causative factor. The five patients seen at the Vanderbilt Clinic gave absolutely no history of ingestion of coal tar products. The etiology was obscure. He would diagnose the condition as erythema maculatum perstans.

* The following histologic report was made by Dr. Heimann subsequent to the presentation of the patient:

Save for a slight general edema the epidermis shows no noteworthy alterations. In the papillary body and the region of the subpapillary plexus, however, there is a distinct, though not intense, edema, causing a separation of the collagen fibers, the blood and lymph vessels are widened, and there is an infiltration. Under higher magnification the infiltration is seen to be within the lymph spaces, especially those surrounding the blood capillaries. This infiltration consists of round cells of the lymphatic type, fibroblasts and pigment cells. Those last mentioned are chromatophores and none of the pigment is of blood origin as is shown by the Perls stain. The chromatophores are seen in greatest number in the immediate vicinity of the vessels, but others are present at more removed points. Absolutely no mast cells are found. Thus urticaria pigmentosa may be excluded. The picture is one of a lymph edema with hyperpigmentation, corresponding to the appearance of erythema perstans.

DR. HOWARD FOX said he did not think that urticaria pigmentosa could be considered in this case. He had certainly never seen this disease occur in the large plaques presented by this patient. Furthermore, it was not possible to artificially produce wheals by friction on the lesions. Attention was also called to the rarity of urticaria pigmentosa in adults.

SCLERODERMA. Presented by DR. BECHET.

The patient was an adult woman from the service of Dr. Trimble. The disease came on rather rapidly, for in a few months she developed large plaques, irregularly scattered over the trunk. When first seen the disease had been present for sixteen months. She presented for examination large, hardened, boardlike areas, from 6 to 10 inches in diameter and of a waxy color, and there were no violaceous borders. The arms and legs were not involved. The patient was presented because of the very marked improvement following the administration of pituitary gland extract. The places were much softer and had lost much of their waxy color.

DISCUSSION

DR. WEISS said, in reference to this discussion, that the administration of pituitary and thyroid in scleroderma, although largely empirical, was not lacking in histopathologic and physiologic facts. Postmortem investigations had frequently shown the thyroid gland diseased, in cases of scleroderma and Graves' disease. But there were cases of scleroderma where Graves' disease was not present and the thyroid gland showed signs of atrophy. In such cases one was constrained to assume that there must have been a presclerodermic stage—the edematous stage of scleroderma, with symptoms of Graves' disease. Later on, with the development of atrophy of the thyroid, the real sclerodermic changes had taken place. This patient showed thyroidal markings of hypofunction and related symptoms of previous hyperthyroidism. Every alteration of the thyroid, it was held, might cause scleroderma and it was believed that the pituitary played a rôle in scleroderma only when the thyroid was not functioning properly. Compensatory hyperplasia took place in an endeavor to establish endocrin equilibrium. This reasoning explained the empirical administration of these two glandular extracts in scleroderma.

DR. BECHET said it seemed to him this case was one of scleroderma and not morphea. While morphea and scleroderma were practically synonymous, he preferred using the former term to designate smaller lesions, with telangiectatic peripheries. The lesions in the case presented were too extensive, and lacked the violaceous border. For these reasons he would prefer to call it scleroderma. The term *scleroderma circumscriptum* might be the most appropriate designation in cases similar to the one presented.

DR. WISE said he had seen this case one year previously, with the typical, boardlike morphea and there was no question about the diagnosis. He would call it scleroderma.

DR. GOTTHEIL asked whether they accepted this case as one of transitory scleroderma.

DR. GEORGE HENRY FOX said that clinically scleroderma and morphea were so distinct that he thought the old terms ought to be retained, in place of localized and general scleroderma.

DERMATITIS HERPETIFORMIS FOLLOWING VACCINATION. Presented by DR. HOWARD FOX.

The patient, A. M., was a girl, aged 6 years. She had been vaccinated for smallpox in March, 1915. About ten days later a generalized eruption of the erythema multiforme type appeared. From that time she had had numerous attacks and had never been entirely free of lesions. At times the attacks were

of the iris type of erythema multiforme. On other occasions the eruption was of the extremely itchy, papular type of dermatitis herpetiformis, while at times it also resembled prurigo.

DISCUSSION

DR. GOTTHEIL said he had seen this case a few weeks previously, with a typical erythema bullosum of both palms, which were covered with large bullae and typical erythema multiforme lesions of the backs of the hands.

DR. OCHS said he had seen this patient originally right after vaccination and at that time it was a typical case of erythema multiforme. That cleared up and then she started to get an attack on the arms which looked very much like prurigo. She had every spring and fall corresponding redness of the skin, when she got these attacks. She never had them before she was vaccinated. The speaker said Dr. Fox happened to visit the clinic and he showed him this patient and Dr. Fox made a diagnosis of dermatitis herpetiformis. Right after that it cleared up and she got another attack. The speaker said he had seen this patient with seven or eight separate, distinct attacks.

DR. GEORGE HENRY FOX said that in regard to the diagnosis, one thing to bear in mind was that in erythema multiforme there were never any excoriations as in this case, while, on the other hand, in dermatitis herpetiformis, there were occasionally erythematous disks with bullous lesions as in typical erythema iris. As both of these clinical appearances had been present at times in this case, he would call it dermatitis herpetiformis. Erythema multiforme would not cover the appearance of the case as presented.

DR. HOWARD FOX said that the case was of interest on account of the possible relation between the eruption and vaccination for smallpox. It was also of interest on account of the variation in the clinical picture which she had presented from time to time.

DR. GEORGE HENRY FOX said that one of the characteristics of dermatitis herpetiformis was its chronic, relapsing character, clearing up and new lesions coming out. He had never seen it limited to the backs of the hands but had seen cases of undoubted dermatitis herpetiformis, in which erythematous disks came out on the body.

BAZIN'S DISEASE. Presented by DR. KINGSBURY.

The patient was a woman, aged 19, who showed lesions of Bazin's disease, which were rather marked, but of comparatively short duration, having been present only six months. She had tuberculous glands at the left side of the neck and had been treated at the hospital with injections of iodine. The exhibitor believed the eruption appeared on the leg after the iodine injections. Both legs were affected, the anterior surfaces being the worse. There were a few nodules on the thighs.

HYPERTRICHOSIS. Presented by DR. GILMOUR.

M. S. A., woman, aged 30, married, was a housewife by occupation and had been born in Italy. The condition described was accidentally discovered while giving her an intramuscular injection of mercury salicylate for the treatment of syphilis. The patient was born with a growth of soft hair, a few inches long, situated over the small of the back. This had gradually increased in length and become coarser, so that it was like the hair of the human head. This hair was growing from a perfectly normal skin. There was no pigmentation or sign of nevus. About every twelve months, for the last eight or ten years, the patient had cut off this hair. The hair present at the time she was shown was 8 inches long and had been growing for one year. The growth had never been much longer than at the time of presentation. The space covered by the hair had a diameter of from 4 to 5 inches. The patient was of a highly neurotic type.

DISCUSSION

DR. GOTTHEIL said there was apparently no defect of the bony structure of the spinal column and certainly no affection of the musculature. He thought the localized hypertrichosis there associated with other defects, which pointed to an incomplete spina bifida.

DR. HOWARD FOX said he had previously presented a similar case before the academy section. This condition of congenital hypertrichosis was well known and was generally associated with spina bifida. In his case the mental condition was decidedly lowered.

DR. GILMOUR said he would try to get a roentgenogram of the spinal column, to see if there was any other condition present resembling spina bifida.

LUPUS TUMIDUS. Presented by DR. OCHS.

The patient was a woman, aged 38. The exhibitor said she spoke only Italian, so he unfortunately could not get a very good history of her condition. The patient had come from Fordham University and presented a lesion on the nose, which had been there between two and three years. It was slowly growing larger, was a soft mass and was shown as a case of lupus tumidus.

MOLLUSCUM FIBROSUM. Presented by DR. BECHET.

The patient, a man, aged 53, came from the service of Dr. Trimble at the University of Bellevue Clinic. The lesions began when he was 13 years old, so that their duration had been approximately forty years. The greater number of them had developed in the first decade, very little increase in number having been noticed in the past twenty years. The body was almost covered with an enormous number of pea to bean-sized, and larger tumors, in varying stages of development. The face was greatly involved.

DISCUSSION

DR. GEORGE HENRY FOX said that the name, molluscum fibrosum, on account of a suggested relationship to molluscum contagiosum which did not exist was changed years ago to fibroma molluscum.

D. L. SATENSTEIN, M.D., Secretary.

Review of Dermatology and Syphilis

Under the direction of FRED WISE, M.D., New York

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THE BRITISH JOURNAL OF DERMATOLOGY

(April-June, 1917, 29, Nos. 4-6)

Abstracted by I. ROSEN, M.D.

A CASE OF MULTIPLE ULCERATING BASAL-CELL EPITHELIOMA WITH ZONIFORM DISTRIBUTION AND POSSIBLY OF SWEAT GLAND ORIGIN. H. G. ADAMSON, p. 81.

The author's case is unusual on account of its zoniform distribution. Clinically the growths resembled *ulcus rodens*. Microscopic examination showed distinct basal-cell epithelioma, arising from the sweat ducts and glands.

The patient, when first seen in March, 1916, presented an irregular disklike patch about three-fourths inch in diameter and slightly raised above the level of the skin. It had an ulcerated crust in the center and a narrow nodular margin. This had been present for four years. The patient received massive doses of roentgen rays after which the lesion healed, leaving a smooth scar.

About six months later the patient returned with fresh lesions along the margin of the scar, together with new lesions extending upward and backward for several inches from the site of the original nodules. Some of the nodules were isolated, others were grouped and some coalesced, slightly raised, smooth, firm, and the color of the skin. The larger nodules showed ulceration with a central crust; their margins suggested the rolled edge of rodent ulcer.

SOME RECENT EXPERIENCES WITH PURE COAL TAR (PIX CARBONIS PREPARATA. B. P.) AT A BASE HOSPITAL IN FRANCE. H. C. SEMON, p. 83.

Semon uses a combination of equal parts of *pix carbonis*, acetone and collodion, in scabies, seborrhea, psoriasis, lichenification, and eczema marginatum, with excellent results.

It is simple, safe, cheap and valuable in the chronic dermatoses of the pruritic type. No dressings are required, which is conducive to the patients' comfort.

ACTION AND RÔLE OF COLLOIDS IN CHEMOTHERAPY. J. E. R. McDONAGH, p. 93.

TREATMENT OF SCABIES BY SULPHUR FUMIGATION. JOHN BRUCE, p. 100.

For this treatment the author uses a sort of improvised Turkish bath cabinet, so constructed as to hold two patients. As it is necessary for the cabinet to be

used out of doors, a canopy covered with canvas is used as a protection from the sun and rain. The seat is so constructed as to allow the sulphur fumes to penetrate to the buttocks.

Sulphur candles are used; they burn slowly and last for about five hours; each candle therefore is sufficient for the treatment of ten patients. As sulphur vapor acts more powerfully in the presence of moisture, a small basin with water is placed on a tripod over the candle. The patient should be kept warm during his stay in the cabinet so as to encourage sweating. The temperature inside the cabinet should be kept at 100-106 F. The exposure to the vapor should be from forty to fifty minutes.

Before the patient is placed in the cabinet, he is given a hot bath, well lathered with soap for at least five minutes; this opens the burrows. He is then transferred to the warm cabinet, the head protruding through the aperture in the roof, and a warm wet towel is placed around the neck to prevent the escape of fumes. An orderly must remain in constant attendance with instructions to remove the patient at once should he show signs of faintness or difficulty in breathing. At the end of forty to fifty minutes the patient returns to the bath room and puts on clean clothing.

One treatment is often sufficient to cure the old standing cases, but to be on the safe side, a second treatment is given at the end of forty-eight hours.

(July-Sept. 1917, 29, Nos. 7-9)

SKIN DISEASES AND THEIR TREATMENT UNDER WAR CONDITIONS. HENRY MACCORMAC, p. 169.

Unusual types of skin diseases have arisen during the progress of this war, for the environment of an army in the field, with its complicated trench work, is quite different from that of ordinary civil life.

The work of the dermatologist is important, when so large a number of men are gathered, for the control of contagious skin diseases. The best results are obtained in fixed institutions with expert personnel. There should be a scabies station for each army corps, where each special medical officer can cope with a large number of skin diseases. Regular medical inspection is necessary to weed out the early cases. The cases of scabies seen in France differ in some important features from those seen in civil life. The hands are often entirely free from lesions, while the interdigital burrows, often considered a pathognomonic sign, are present only in about 13 per cent. of the cases.

Pediculosis, a common affection among soldiers, presents a close resemblance to scabies, at times most puzzling to differentiate. Fortunately the penis is very rarely affected in pediculosis, while in scabies almost always. Interdigital vesicles rather than burrows should be sought for; impetigo of the buttocks is pathognomonic of scabies, and every patient with boils should be regarded as suspicious.

In the treatment, three conditions must be fulfilled: burrows must be opened to permit access of the parasiticide to the insect and ova; the parasiticide should be of such a nature as to destroy the parasite without producing a dermatitis, and, lastly, to prevent reinfection, contact clothing and blankets must be disinfected. The first of these conditions is achieved by a hot bath, soap, and a soft brush; the second, by the application of sulphur ointment, twice daily, for three consecutive days, and the third, by means of steam pressure or sulphur vapor apparatus.

PYODERMIA OF PARASITIC ORIGIN. H. C. SEMON AND H. W. BARBER, p. 173.

Pyodermia among soldiers, occurring on the trunk and limbs, is almost invariably due to a concomitant parasitic infection (scabies or pediculosis). The

authors describe in detail the differential diagnosis of the various parasitic diseases causing pyodermias, and in their conclusions emphasize the following:

1. Of 669 cases admitted in five weeks, 442 were directly due to scabies and pediculosis. It is therefore evident that the disability produced by parasitic infections is considerable.

2. The pediculus vestimentorum can, and in a great majority of the cases does, lay its eggs in the hair of the pubis and perineum, and sometimes in the axilla. It may therefore be deduced that measures directed toward sterilization of the clothes cannot be efficient, unless the host himself is disinfected at the same time.

3. A seborrheic diathesis greatly aggravates the infection.

CONCERNING THE LUTIN REACTION AND THE EFFECT OF IODIN. N. C. BORBERG, p. 190.

A REMARKABLE CASE OF XANTHOMA TUBEROSUM MULTIPLEX. E. PARKES WEBER, p. 202.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE

(July, 1917, 10, No. 9)

Abstracted by W. H. GUY, M.D.

SKIN DISEASES AND THEIR TREATMENT UNDER WAR CONDITIONS. HENRY MACCORMAC, p. 121.

A very interesting article dealing with contagious skin diseases in general, and with scabies and its complications in particular. Stress is laid on the occurrence of great numbers of cases of "the itch" in trench life and on the inefficiency of treatment formerly applied. The author states that of 1,000 cases diagnosed as scabies, boils, impetigo, over 65 per cent. are due to scabies, and after reviewing these cases and the results obtained by the usual treatment applied by untrained men he insists on the necessity of a special corps and scabies stations for the treatment of scabies, the personnel of each corps to include a dermatologist and trained assistants. Hot baths followed by sulphur ointment and disinfection of clothing for three successive days is recommended for routine treatment. Ecthyma, impetigo contagiosa, impetiginous seborrhea, pityriasis rosea, psoriasis, etc., are reported as of frequent occurrence among the troops; various etiologic factors and methods of treatment in vogue are discussed. Several excellent plates accompany the article.

CASE OF MACULO-ANESTHETIC LEPRO, GEORGE PERNET, p. 157.

CASE OF SYRINGOCYSTOMA. J. L. BUNCH, p. 162.

CASE OF XANTHOMA TUBEROSUM MULTIPLEX. F. PARKES WEBER, p. 164.

CASE OF DYSIDROSIS. J. M. H. MACLEOD, p. 168.

A case of dysidrosis in a girl, aged 14, who was suffering from a hemiplegia. Of particular interest was the fact that the dysidrosis was much worse on the paralyzed side.

MACULAR ATROPHY OF THE SKIN. F. PARKES WEBER, p. 175.

Due to the fact that this patient had a macular atrophy associated with a vitiligo, the author suggests the possibility of a common etiology for the two conditions.

BOLETIM DA SOCIEDADE BRASILEIRA DE
DERMATOLOGIA*(Year 1915, 4, Nos. 1, 2 and 3)*

Abstracted by V. PARDO, M.D.

This number of the Brazilian bulletin contains the proceedings of the sessions of the Brazilian Dermatological Society, from May 7, 1915, to December 24, 1915. Very interesting and notable cases are presented, among which those of myasis linearis (creeping eruption), granuloma venereum, leishmaniosis cutis, blastomycosis, yaws, and tropical ulcers, are the most remarkable. Also very interesting are two cases of late hereditary syphilis with enormous destruction of the face, presented by Dr. Machado, and several cases of annular syphilides in negroes, presented by Dr. Araujo. Dr. Roquette reported in the session held on June 9 the presence, in the Brazilian Indians of Juruema Valley, of a new disease which they call "aancé-dutú." It consists of vesicular and squamous lesions arranged in rings and seated on any part of the cutaneous surface. Roquette thinks that these lesions are produced by a fungus analogous to that of tinea imbricata.

I do not hesitate in recommending this bulletin to the readers of this publication and especially to those interested in tropical skin diseases. The reports are printed in French and Portuguese.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT

(Sept. 19, 1916, 63, No. 38)

Abstracted by ARTHUR WILLIAM STILLIANS, M.D.

ACNE NECROTICA AND THE USE OF TOBACCO. F. WEINBRENNER.
p. 1372.

The author reports eight cases of acne necrotica, all in men who used tobacco, and all persistent until tobacco was stopped, when all except one promptly cleared up. The one case in which the treatment failed was in a chewer who had also a chronic stomach disturbance, which the author thinks may have kept up the disease. The claim is not made that tobacco is the only cause of the disease, for it occurs in women as well as in men, but it seems to have been the cause in these seven cases. Not only did the lesions disappear within a few weeks after the tobacco was given up, but in one of the cases they recurred when tobacco was again used. Local treatment consisted of diligent washing with alcohol.

A COMMUNICATION ON THE TREATMENT OF FURUNCLES
IN TROOPS IN THE FIELD. F. KASTAN, p. 1372.

After trying out various methods and combinations of methods, the author decided that a thin but continuous coating of blue ointment about the lesions, with a wet dressing of weak aluminum acetate solution on them, is by far the most effective. The wet dressings are renewed daily, but the ointment is left on for three or four days at a time. When many lesions are present and the ointment is spread over a large surface it must not be used too long for fear of mercurialization.

(Ibidem, Sept. 26, 1916, 63, No. 39)

RESEARCH ON SPOTTED FEVER. H. DA ROCHA-LIMA, p. 1381.

The researches of Ricketts and Wilder, Prowazek and Sergent, Foley and Valette are briefly reviewed. The author agrees with Ricketts and Wilder, that the polar staining bacilli are found constantly in lice fed on the blood of typhus

patients, but also occasionally in normal lice. The research of the author has resulted, however, in finding changes in the cells of the digestive tract of the typhus lice, secondary to the growth of the bacilli. No such cell changes were found in normal lice. The possibility that the intracellular growth of the bacilli was caused by the febrile temperature was ruled out by finding no such development in lice fed on the blood of other febrile diseases. The author believes that the organism is probably the cause of typhus, and suggests the name *Rickettsia prowazeki* for it. Guinea-pigs injected with emulsions of infected lice sicken and acquire an immunity against typhus just as do animals injected with typhus blood. He thinks that the typical forms are the handle and biscuit shapes seen usually in the cells, and that the polar staining bacillus form is probably the result of a reaction in the cell. The organism is not the same as the much plumper and larger anaerobic bacillus of Plotz, which is gram-positive, while the *Rickettsia* decolorizes at once with Gram's solution. While he praises highly the careful research of Plotz and his co-workers he rejects the complement binding and agglutination tests as not necessarily specific.

HAMSTER COMPLEMENT IN PLACE OF GUINEA-PIG COMPLEMENT IN THE WASSERMANN REACTION FOR SYPHILIS.

A. REINHARDT, p. 1399.

Because of the scarcity and high price of guinea-pigs the author has made a careful trial of the serum of the hamster (a small rodent) in place of that of guinea-pigs, and found it perfectly satisfactory. He suggests that other rodents, such as moles, may also furnish complement.

A CASE OF SYPHILITIC REINFECTION. BERENT, p. 1408.

A case of primary syphilis with the Wassermann reaction still negative was given a total of 4.5 gm. of salvarsan-natrium between March 24 and May 1, 1916. The patient was then discharged as cured. He returned on June 20 with a history of exposure three or four weeks previously and two small ulcers, typical chancres, on the inner surface of the prepuce, from which many *Spirochaeta pallida* were obtained. The primary lesions of the first infection were many, on a different part of the inner surface of the prepuce and on the glans and in the corona. The glands of the first infection were bean-sized, in both groins. Those of the second infection were as large as hazel nuts, in the right groin. On the grounds of a history of exposure, different localization of the chancres and of the glands, and the negative Wassermann reaction in both cases, the author believes that the demonstration of a reinfection is sufficient. This is the first case of reinfection after a cure with salvarsan-natrium reported, so far as the author knows.

(*Ibidem*, Oct. 17, 1916, 63, No. 42)

ON THE TREATMENT OF HEMANGIOMA. K. STROMEYER, p. 1480.

In none of the descriptions in the literature of the alcohol injection method of treatment for angioma could the author find any mention of the advantage of compression of the tumor before and during the injection. This eliminates the diluting effect of the blood in the vessels, and increases the proportion of connective tissue to the whole mass of the tumor, so that the injection can be made into the extravascular tissue much more easily. The number of treatments necessary to a cure is thus reduced from many to from two to five, he claims.

TUBERCULOSIS OR SYPHILIS OF THE LUNG? WILMANS, p. 1481.

The importance of careful diagnosis, with the possibility of pulmonary syphilis of the adult in mind, is emphasized, and the diagnostic points are reviewed. Eight cases of pulmonary syphilis are reported.

ON THE CHOLIN CHLORID TREATMENT OF SCARS AND THEIR RESULTS. O. BURKARD, p. 1505.

In thirty-seven cases of scarring, none of which were beyond the hope of improvement, the author has seen no results whatever from the injection of cholin chlorid, which Fraenkel has so highly recommended. The injections have done no harm except in causing the pain, which is not inconsiderable.

(*Ibidem*, Nov. 28, 1916, 63, No. 48)

THE CAMPAIGN AGAINST VENEREAL DISEASE. VON ZUMBUSCH AND DYROFF, p. 1692.

The report of a commission appointed by the medical society of Munich. They believe that the great need is for measures compelling infected persons to take adequate treatment. The familiar argument that the attempt at compulsion would lead to concealment and treatment by quacks is not necessarily true, according to the authors, who think that the knowledge of the danger from venereal disease which the legal act of compulsion would carry with it would offset this tendency. Of course the practice of quacks must be regulated. By their investigation they find that a large part of the population is in favor of legal compulsion. The argument that the physicians themselves would not heed the law is a slander on the profession. It is an encouraging fact that the laws already passed, though lacking the means of compulsion, have been well received by the people. They then present proposed plans for reporting cases, strict secrecy of records, examination of persons suspected of venereal disease or exposed to infection, and hospital treatment for the careless, rebellious and seriously ill.

TREATMENT OF ERYSIPELAS WITH QUARTZ LAMP. F. KOENIG, p. 1702.

The author remarks the scarcity of erysipelas among the wounded in the field, and the great frequency with which it occurs among the same class of cases in the home hospitals. The disease is not more severe than formerly, but the weakened condition of the soldiers makes it more dangerous for them than for others. Any method of treatment that promises to shorten the course of the disease is therefore gladly welcomed. Of late the treatment with ultraviolet light produced by the quartz lamp has been praised as far excelling all other methods in its effect on erysipelas. The author has been using this method since 1913, and at first was very enthusiastic in its favor, but soon encountered cases in which the progress of the disease was not at all arrested by the reaction due to the light. This is the same experience that follows the trial of any new method of treatment of this disease. Like all other methods, it fails in certain cases, and no claim for a sure cure can be made. The author has rayed cases after operation to prevent the development of erysipelas in the wound, but has seen erysipelas develop in spite of the effort at prophylaxis. In a case of compound fracture of the bones of the foot in which a Pirogoff osteoplastic operation was necessary three weeks' treatment with the quartz lamp failed to rid the wound of streptococci.

The article closes with a protest against the furor for ultraviolet light treatment, and mentions a case of gallstones in which it was used, and still worse, a case of carcinoma of the rectum treated with quartz lamp for three months, until inoperable.

(*Ibidem*, Jan 2, 1917, 64, No. 1)

A SEROCHEMICAL REACTION IN SYPHILIS. C. BRUCK, p. 25.

For years the author, a collaborator of Wassermann in the complement binding reaction for syphilis, has tried to find a simple substitute for it. He could not rid his mind of the idea that the reagin responsible for the Wassermann reaction

can be demonstrated in some simple chemical reaction if only the right reagent could be found. A study of the effect of oxidizing and reducing agents on syphilitic and nonsyphilitic serum produced no result. When he came to study the effect of acids and alkalies, however, he found that the nitric acid precipitate in syphilitic serum dissolved with greater difficulty on neutralization with alkalies than that in normal serum. Then he discovered that the precipitate in normal serum dissolved in water, while the syphilitic precipitate did not. On this fact he bases his new test.

To 0.5 c.c. of clear serum he adds 2 c.c. distilled water and shakes the mixture. To this he adds 0.3 c.c. of the acidum nitricum purum of the German Pharmacopoeia (about 25 per cent. nitric acid, with a specific gravity of 1.149) and shakes up the white precipitate. After allowing this to stand at room temperature for ten minutes, 16 c.c. distilled water is added and the tube (a large caliber test tube) is capped with the finger and carefully inverted three times, the formation of froth being avoided. After ten minutes, this mixing is repeated, and the tube left standing at room temperature for a half hour. At the end of this time the reaction can be read. All tubes with clear contents, or transparent opalescent contents are negative. Tubes with distinct, finely flocculent clouding are positive. After twelve hours the normal serums show clear, or with only a slight trace of precipitate at the bottom, while the syphilitic serums show a larger or smaller gelatinous precipitate.

Precautions:

1. Use only absolutely clean glassware.
2. Inactivation of serum is not necessary. Active or inactivated serum reacts the same.
3. If one has plenty of serum, 1 c.c. can be used with 2 c.c. distilled water, 0.3 c.c. reagent and 16 c.c. distilled water, or if the amount of serum is small, 0.3 c.c. serum can be used with 2 c.c. distilled water, 0.3 c.c. reagent and 14 c.c. distilled water.
4. Accurate dosage of the reagent is necessary; 0.2 c.c. gives negative reactions in syphilis, 0.5 c.c. positive reactions in normal serums.
5. Avoid reading as positive tubes showing moderate opalescence.
6. Avoid heating. The precipitate dissolves easily with heat.
7. Do not make more than twelve tests at once, in order to observe strictly the time between addition of reagent and dilution with water. Use a known positive and known negative serum as controls.
8. Strongly chylous, bloody or hemolytic serums are not to be used. Clear serums react the same after standing for days.

In 200 syphilitic serums the new reaction agreed with the Wassermann test in all but five cases. Two secondary cases and one latent, with positive Wassermann reactions, were negative to the Bruck test. One case of congenital syphilis and one with gumma of the palate, negative with the Wassermann reaction, were positive with the Bruck test. Cases giving doubtful Wassermann tests were either frankly positive or negative with the new test, always in accord with the clinical findings.

In 200 nonsyphilitic cases, five were positive by the new test, four of them being old wounds of the leg and thigh and one case of tuberculosis; these patients were all febrile.

The author does not expect his reaction to take the place of the Wassermann test, but thinks it may be due to the same peculiarity of syphilitic serum which produces the Wassermann reaction, and asks that it be given a trial by serologists. If it proves reliable, it has the great advantage of simplicity and shortness, requiring only a simple laboratory equipment and only one stable reagent. Any additions to our equipment for the diagnosis of syphilis will be especially valuable during the coming demobilization of the troops.

THE RECOGNITION OF *RICKETTSIA PROWAZEKI* IN CASES OF SPOTTED FEVER. H. DA ROCHA-LIMA, p. 33.

The proof of a bacterium-like parasite in the cells of lice fed on typhus patients, the fact that only in these lice can the organism be found within the cells of the gastro-intestinal tract, that normal lice become infected with this parasite when fed on typhus patients, that lice are infected with this parasite in no other way and that a strong relation exists between the ability to infect animals with typhus and the ability to infect lice with this parasite, make a strong chain of evidence in favor of this organism (the polar staining bacillus of Ricketts) as the cause of the disease. The fact that the organism cannot as yet be grown on artificial mediums and the further fact that it has not yet been demonstrated in the human tissues remain in the way of final proof of its specificity. The difficulty in demonstrating the organism in human tissues depends on the fact that granulations and tissue fragments exist in blood and other tissues that resemble the organism so closely in size, shape and staining (staining red with Romanowsky-Giemsa) that it is impossible to state definitely which is organism and which tissue fragment. He therefore rejects the claims of Toepfer and Hanser, that they have demonstrated the organism in skin sections.

AMERICAN JOURNAL OF THE MEDICAL SCIENCES

(October, 1917, 154, No. 4)

Abstracted by R. C. JAMIESON, M.D.

SYPHILIS OF THE NERVOUS SYSTEM IN SOME OF ITS CLINICAL AND PATHOLOGICAL MANIFESTATIONS. WM. G. SPITLER, p. 523.

The writer states as his belief that tabetic ocular palsies have lesions in the nerve fibers as they leave the brain, and that nuclear changes are more apt to be found in cases of long standing.

Degeneration occurring in the nerve is expected to return to normal provided treatment is vigorous and early and the degeneration not too intense. Degeneration of the cells of origin would show less improvement.

He discusses ocular nerve conditions in relation to syphilis and the connection between syphilis and epilepsy.

RESEARCHES IN REGARD TO THE COAGULO-REACTION OF THE SYPHILITIC SERUM. HISAKIYO UEMURA, p. 533.

The rather elaborate technic of this reaction is thoroughly discussed by the author and tables showing the results with 500 serums are given. He thinks this coagulo-reaction is highly characteristic of syphilitic serum if this technic is used and sources of error avoided. Although it may be superior to the Wassermann in some cases, it will not supplant that reaction but will afford an additional method of diagnosis.

ETIOLOGICAL FACTORS OF ACNE VULGARIS. ALBERT STRICKLER, p. 579.

Strickler believes in a disturbed gastro-intestinal state as a cause of acne and conducted some experiments with regard to the production of indol. Complement-fixation tests using colon bacillus antigen were also done, giving 63.1 per cent. positive cases with colon bacilli of acne patients, 32 per cent. positive with normal colon.

No definite results were obtained with anaphylactic food reactions. A few cases showed a low hemoglobin percentage, while hyperglycemia was frequently

present. Pelvic disturbances in the female, puberty and abnormal sexual life played varying rôles in the production of acne. The acne bacillus was found in forty-eight of fifty-seven cases studied and the writer thinks the vast majority of cases of acne are due to the presence of this organism.

VITILIGO AND SYPHILIS OF THE CENTRAL NERVOUS SYSTEM.

E. MURRAY AUER, p. 592.

Attention is called to the association of vitiligo and syphilis, four cases being cited in which the infection was of long standing and involved the central nervous system. The writer states that the areas of vitiligo suggest a central rather than a peripheral nerve lesion on account of the symmetrical and segmental distribution.

(Ibidem, November, 1917, 154, No. 5)

THE COMPARATIVE VALUE OF THE WASSERMANN, THE COLLOIDAL GOLD AND OTHER SPINAL FLUID TESTS.

E. M. HAMMES, p. 625.

Positive globulin is found most constantly in pathologic spinal fluid, but is merely an indication of inflammation. These fluids usually show some lymphocytosis, but the most accurate test employed was the colloidal gold test, which, however, gives no reaction with a normal spinal fluid. In the diagnosis of tabes and cerebrospinal syphilis, the colloidal gold test gives a typical curve in the syphilitic zone, although the two conditions cannot be differentiated by this method. The paretic curve is frequent and quite characteristic.

In doubtful meningitis cases the gold curve is probably of value as it usually occurs in high dilutions and it has also proved to be more delicate than the Wassermann, some spinal fluids giving a negative Wassermann but a syphilitic curve with colloidal gold. Antisyphilitic treatment rarely affects the gold test although it may be sufficient to change the Wassermann.

REPORT OF A CASE OF SCLERODERMA OF THE SKIN. A. S.

ROBINSON, p. 657.

The author reviews the literature on these cases in connection with his own case, which is stated to be of a diffuse type following an injury to the hip and affecting areas which usually are not involved.

Thyroid medication improved her protein metabolism as well as producing a clinical change for a time. The disease areas showed some degenerative changes in the peripheral nerves.

ARCHIVES OF INTERNAL MEDICINE

(August, 1917, 20, No. 2)

Abstracted by R. C. JAMIESON, M.D.

RELATION OF PELLAGRA TO LOCATION OF DOMICILE IN SPARTAN MILLS, S. C., AND THE ADJACENT DISTRICT. J. F. SILER, P. E. GARRISON AND W. J. MACNEAL, p. 198.

In reviewing the work of the commission on pellagra, a typical mill village, Spartan Mills, was taken as an example of a location which had had pellagra for a long time. It was found that all new cases since 1914 in the village had developed while the persons were residing in the same house or next door to an active pellagrins. At the latest the disease developed within six months after such exposure. However, the spread of pellagra has been greatly restricted since a sewer system has been installed. They are more convinced than before that pellagra is a slowly spreading, infectious disease which attacks only a small per-

centage of the population in the immediate vicinity and is favored by unsanitary methods of sewage disposal. .

(Ibidem, October, 1917, 20, No. 4)

THE RELATION OF PELLAGRA TO LOCATION OF DOMICILE
IN INMAN MILLS. INMAN, S. C. J. F. SILER, P. E. GARRISON
AND W. J. MACNEAL, p. 521.

The village in this report was a more rural community than Spartan Mills with regard to sewage, water supply, etc., and did not develop pellagra until after 1911. New cases of the disease during the past three years have been found to develop as in other communities, namely, in the same house with or next door to pellagrins. Susceptibility would seem to be low here as only a small percentage has been attacked.

(Ibidem, November, 1917, 20, No. 5)

SERUM CHANGES FOLLOWING PROTEIN "SHOCK" THERAPY.
W. F. PETERSEN, p. 716.

From the experiments described in his article Petersen believes that "the benefits of shock therapy do not depend on any single alteration in the reacting organism, but on a series of factors in which not only the serum antibody and ferment changes, but the leukocytosis, the fever and sweating and the increased lymph flow have a part, along with the important cellular changes which are as yet intangible."

(Ibidem, December, 1917, 20, No. 6)

FIVE GENERATIONS OF ANGIONEUROTIC EDEMA. J. R. CROWDER
AND T. R. CROWDER, p. 840.

The authors review the literature on the subject and give a complete history of a family in which five generations were afflicted with the disease. The first generation had only one affected, the second had nine, the third twelve, the fourth had five and the fifth had only one out of six descendents. They consider it a distinct clinical entity, although only a symptom, heredity being the chief etiologic factor in their group cases, all of whom were in neuropathic families. Some deaths had occurred due to acute swelling in the throat or internal organs and the question of anaphylaxis would seem to offer more in the solution of the etiology.

MEDICAL RECORD

(Sept. 29, 1917, 92, No. 13)

Abstracted by C. C. TOMLINSON, M.D.

NONSPECIFIC PROTEIN TREATMENT OF PSORIASIS. ELEANOR
VAN NESS-VAN ALSTYNE, p. 538.

The author reports four cases of psoriasis treated with subcutaneous injections of proteins prepared from alfalfa and millet seed. In preparing the protein the author used the method described in the *Medical Record*, Vol. 92, No. 3, p. 98.

There was an improvement of the general condition and of the specific lesions in all cases, the latter beginning in from two to five weeks from the beginning of treatment. No other local or general treatment was used. There was no local or general reaction resulting from the injections. The time required for a cure as given in two of the cases was three and a half and four months, respectively. From one to three injections were given a week.

CERTAIN TECHNICAL REFINEMENTS IN METHODS OF INTRA-
VENOUS INJECTION. JOHN H. STOKES, p. 529.

The author describes in detail the technic of venepuncture and salvarsan administration. The different errors in technic are pointed out and their remedies given.

(Ibidem, Oct. 20, 1917, 92, No. 16)

REPORT OF TWO CASES OF MULTIPLE KELOIDS. J. E. LOPEZ-
SILVERO, p. 673.THE MASTIC REACTION OF THE CEREBROSPINAL FLUID.
E. R. SMITH, p. 675.

The author describes the technic of the mastic test and tabularizes the results of a series of tests, together with the diagnosis and the results of other biologic and chemical tests on the same fluid. That this test will render the same information as the Lange colloidal test is the opinion of the author.

Correspondence

REPORTING OF ACCIDENTS FROM LOCAL ANESTHETICS

To the Editor:—The Committee on Therapeutic Research of the Council on Pharmacy and Chemistry of the American Medical Association has undertaken a study of the accidents following the clinical use of local anesthetics, especially those following ordinary therapeutic doses. It is hoped that this study may lead to a better understanding of the cause of such accidents, and consequently to methods of avoiding them, or, at least, of treating them successfully when they occur.

It is becoming apparent that several of the local anesthetics, if not all of those in general use, are prone to cause death or symptoms of severe poisoning in a small percentage of those cases in which the dose used has been hitherto considered quite safe.

The infrequent occurrence of these accidents and their production by relatively small doses point to a peculiar hypersensitiveness on the part of those in whom the accidents occur. The data necessary for a study of these accidents are at present wholly insufficient, especially since the symptoms described in most of the cases are quite different from those commonly observed in animals even after the administration of toxic, but not fatal, doses.

Such accidents are seldom reported in detail in the medical literature, partly because physicians and dentists fear that they may be held to blame should they report them, partly, perhaps, because they have failed to appreciate the importance of the matter from the standpoint of the protection of the public.

It is evident that a broader view should prevail, and that physicians should be informed regarding the conditions under which such accidents occur in order that they may be avoided. It is also evident that the best protection against such unjust accusations, and the best means of preventing such accidents consist in the publication of careful detailed records when they have occurred, with the attending circumstances. These should be reported in the medical or dental journals when possible; but when, for any reason, this seems undesirable, a confidential report may be filed with Dr. R. A. Hatcher, 414 East Twenty-Sixth Street, New York City, who has been appointed by the Committee to collect this information.

If desired, such reports will be considered strictly confidential so far as the name of the patient and that of the medical attendant are concerned and such information will be used solely as a means of studying the problem of toxicity of this class of agents, unless permission is given to use the name.

All available facts, both public and private, should be included in these reports, but the following data are especially to be desired in those cases in which more detailed reports cannot be made:

The age, sex, and general history of the patient should be given in as great detail as possible. The state of the nervous system appears to be of especial importance. The dosage employed should be stated as accurately as possible; also the concentration of the solution employed, the site of the injection (whether intramuscular, perineural or strictly subcutaneous), and whether applied to the mouth, nose, or other part of the body. The possibility of an injection having been made into a small vein during intramuscular injection or into the gums should be considered. In such cases the action begins almost at once, that is, within a few seconds.

The previous condition of the heart and respiration should be reported if possible; and, of course, the effects of the drug on the heart and respiration, as

well as the duration of the symptoms, should be recorded. If antidotes are employed, their nature and dosage should be stated, together with the character and time of appearance of the effects induced by the antidotes. It is important to state whether antidotes were administered orally, or by subcutaneous, intramuscular or intravenous injection, and the concentration in which such antidotes were used.

While such detailed information, together with any other available data, are desirable, it is not to be understood that the inability to supply such details should prevent the publication of reports of poisoning, however meager the data, so long as accuracy is observed.

The committee urges on all anesthetists, surgeons, physicians and dentists the making of such reports as a public duty; it asks that they read this appeal with especial attention of the character of observations desired.

TORALD SOLLMANN, Chairman.

R. A. HATCHER, Special Referee.

Therapeutic Research Committee of the Council on Pharmacy and Chemistry
of the American Medical Association.

Book Reviews

DISEASES OF THE SKIN. By RICHARD L. SUTTON, M.D., Professor of Diseases of the Skin, University of Kansas School of Medicine; Former Chairman of the Dermatological Section of the American Medical Association; Member American Dermatological Association; Assistant Surgeon United States Navy, Retired; Dermatologist to the Christian Church Hospital. With 833 illustrations and 8 colored plates. Second edition, revised and enlarged. *C. V. Mosby Company, St. Louis.* 1917.

The first edition of Sutton's admirable textbook appeared in 1916. The fact that it was necessary to print a second edition within a year shows that the work has received the recognition and success it deserves. The author has taken advantage of the opportunity and has added to the various subjects the important literature of 1916. Considerable new material has been added so that we find in the present edition the subjects of gangrenous balanitis, atrophy of the mucous membranes of the tongue and mouth, and atrophy of the fatty layer of the skin, which were wanting in the first edition. The article on perleche has been rewritten and that portion of the one on pediculosis which deals with treatment has been considerably amplified. One hundred and forty new illustrations and 100 pages of text have been added. The typographic errors of the first edition have been corrected. For the most part the illustrations are good, but the presswork is poor on a few of them in the reviewer's copy.

This profusely illustrated, thoroughly modern textbook of a thousand pages covers the entire subject of dermatology and syphilology in an admirable manner. We hope and believe that the second edition will be as enthusiastically received as was the first edition.

THE PRINCIPLES AND PRACTICE OF DERMATOLOGY. By WILLIAM ALLEN PUSEY, A.M., M.D., Professor Emeritus of Dermatology in the University of Illinois; Dermatologist to St. Luke's and Augustana Hospitals, Chicago; Member of the American Dermatological Association. Third edition. *D. Appleton & Company, New York and London.* 1917.

We welcome the third edition of this well-known textbook. The first edition was published in 1907, and the last (second edition) appeared in 1911. Dermatology and especially syphilology have grown considerably since the publication of the second edition, but we find that the author has kept pace with recent progress. The book has been thoroughly revised and brought up to date. The subject of syphilis has been entirely rewritten. The author, in this part of the book, elaborates considerably, and we are glad that he does because it serves to strengthen the belief that syphilology and dermatology are inseparable.

Another topic that has been completely rewritten is pellagra. Other subjects that have been added or rewritten are: changes of the blood in skin diseases, autoserum therapy, fulguration, infantile erythema, hair-dye dermatitis, dermatitis from formaldehyd, gonorrheal eruptions, balanitis gangrenosa, ulcus acutum vulvae, espundia, skin lesions produced by bees, ants, flies, gnats, etc., blue atrophy of the skin, dermatitis nodularis necrotica, dermatothalasia, nevus anemicus, zoniform ectases, purpura annularis telangiectodes, leukemia cutis, sarcoid, trichotillomania, Moeller's glossitis, periadenitis mucosa necrotica.

The number of pages has been increased from 1027 to 1209 pages. One hundred and ten new illustrations have been added.

THE JOURNAL OF CUTANEOUS DISEASES

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WHOLE No. 426

Original Communications

OSSIFICATION IN A CASE OF SCLERODERMA *

S. POLLITZER, M.D.

NEW YORK

Examples of bone-formation in the skin are extremely rare. In the older literature these cases for the most part deal with calcification and ossification occurring in old tumors—epitheliomas, cysts, etc. In these cases there is probably a necrosis of the tissues as a preliminary to the calcification, a process well known to pathologists and exemplified in the case of calcification of old tuberculous foci in the lungs.

A few cases of true osteoma in the skin in which the bone-formation probably depended on embryonal rests have been described in recent years. In this category we should place Sherwell's case, described by Warren Coleman,¹ in which extensive bone-formation was found on the sole of one foot in a child 3½ years old; Taylor and MacKenna's² case in which several scattered plates of bone were demonstrated in the cutis in small regions in an infant; and Heidingsfeld's³ case in which numerous fine particles of bone were found in a pigmented nevus on the chin of a young man.

On the other hand, instances of true metaplastic formation of bone in the skin have been described, so far as I know, only in cases following traumatic or operative lesions of the skin, the osteosis occurring in the resulting scar tissue.

In the case which forms the basis of this paper the osteosis may be regarded as analogous to the bone-formation in old scar tissue. The connective tissue of an old scleroderma has much in common with old scar tissue. In both, it seems noteworthy there is a feeble blood circu-

* Received for publication March 1, 1918.

* Read before the Forty-First Annual Meeting of the American Dermatological Association, Cincinnati, May 24-26, 1917.

1. Coleman, Warren: *THE JOURNAL CUTAN. DIS.*, 1894, 12, p. 185.

2. Taylor and MacKenna: *THE JOURNAL CUTAN. DIS.*, 1908, 16, p. 449.

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lation. What factors determine the deposition of lime salts in the connective tissue we do not know. The relatively frequent occurrence of these rare dermatoliths in sebaceous-gland tumors and in the subcutaneous fat has lent some color to the theory that the presence of fatty acids plays a rôle in the precipitation of lime salts. In scleroderma occurring in the face, a region particularly well supplied with sebaceous glands, the atrophy of these structures might well serve as the source of an abnormal amount of fatty acids; but certainly the factor of sebaceous glands does not enter into the etiology of calcification in old scar tissue. In these cases, however, the possibility of fatty acids derived from the subcutaneous fat which had been injured by the trauma that produced the scar tissue must be recognized. Scar tissue in the skin, however, is one of the most common of all pathologic conditions, and calcification in scar tissue is extremely rare. Similarly scleroderma is a fairly common disease. More than twenty years ago Lewin and Heller⁴ made an analysis of 500 cases of this disease and neither they nor any one since that time has recorded an example of calcification and ossification. There must obviously be some factor of extraordinarily rare occurrence that determines the deposit of lime salts in these relatively frequent conditions.

REPORT OF CASE

History.—Mr. X., aged 47, merchant, married, father of four healthy children, was born in Russia of German parents, educated in Germany where he lived until 21 years old when he emigrated to Colombia, South America, where he has since resided except for brief visits to Europe and the United States. While on a visit to Europe in 1899 he consulted Kaposi in Vienna on account of an affection of the skin of the face, which had appeared the year before, when he was 28 years of age.

Character of Lesions.—This affection appeared as a dense area of ivory-white color on each side of the face and was diagnosed by Kaposi as scleroderma. These areas after several years gradually lost their ivory-white appearance and assumed a nearly normal color. After pressure with the finger the color in the affected area returned promptly, though in the first years of the disease no change in color could be elicited by pressure. The beard hairs, which had entirely disappeared from the affected area again made their appearance though the growth was extremely sparse and feeble. The active process thus seems to have run its course in a few years, and then a kind of spontaneous cure occurred, so that at the present time it is impossible by inspection to determine the exact limits of the original patches, as the skin of the sides of the face presents merely a slightly atrophic appearance, scarcely differing from that of the scalp which has the atrophic aspect of an old seborrheal alopecia.

In the spring of 1915 scattered areas of the skin on both sides of the face and in the regions behind and below both ears appeared unusually dense, "like wood." The patient was in the habit of palpating and squeezing these areas, and in the summer of 1915, while pinching up one of the woody patches he experienced a sharp snap as if something had broken under his fingers. Soon after this a slight elevation appeared at the lower end of the indurated area, and as "the result of

4. Lewin and Heller: Die Sclerodermie, Berlin, 1885, Hirschwald.

an injury in shaving" a round, pinhead-size ulcer developed and remained open or covered with a crust for several months. Then the crust which had gradually attained a diameter of 5 or 6 mm. became loosened at one side and finally came away, the fragment having the consistency and the gross appearance of a piece of bone.

Subsequent History.—The history of the many scattered ulcers on the face and neck which appeared in the course of the next year or two is without special interest, and may be summarized as follows: At a point usually corresponding to the margin of one of the "woody" patches, a small papule appeared, broke down and discharged a little thin secretion; then the resulting ulcer became filled with a mass that resembled a crust but had the consistency of bone; this bony crust in some cases disintegrated in the course of several months,



Fig. 1.—Showing the bony or calcareous extensions in a group of ulcers.

and in some cases projected beyond the level of the skin, sticking out like the end of a sequestrum from its sinus, but unlike a sequestrum, the bony fragment could not be removed by traction. None of the ulcers showed any tendency toward healing.

PRESENT CONDITION

When I saw the patient, in 1917, there were four ulcers on the right side of the face, from the temporal region to the horizontal ramus of the jaw and one below and behind the mastoid; on the left side there were also four ulcers in the corresponding region of the face and one on the neck, below the mastoid. In addition there was an area in the left temporal region 2 by 2½ cm., in which a thin, hard, elastic plate

could be felt under the intact epidermis, like a thin plate of bone or cartilage. Bonelike material formed the floor of some of these ulcers, in some a bonelike fragment filled the ulcer to the level of the skin, and in some there was a projection of bonelike matter above the level, in one case fully half a centimeter in height. Traction on the projecting mass not only failed to loosen it, but showed by the motion of the adjacent skin that it extended for a considerable distance superficially under the epidermis and was part of a bony induration that measured not less than $2\frac{1}{2}$ cm. in length. Palpation in the neighborhood of the ulcers disclosed in every instance a more or less considerable bony hardness under the surface, and the bony mass visible was evidently a part of the bony induration that was palpable under the intact epidermis. The bonelike masses in some of the ulcers was firm and resistant in structure; in some, pressure with a forceps sufficed to crush the mass, as if it had undergone disintegration through weathering. Traction on the bony projections caused no pain. The secretion from the ulcers was insignificant in quantity; their margins were sharp and punched out without any apparent thickening of the edges.

TREATMENT

The patient's general condition was bad. He habitually used alcohol to excess. He was decidedly arteriosclerotic, he had a moderate interstitial nephritis, cirrhosis of the liver, and a glycosuria of from one half to 2 per cent. In addition he had acquired an acute staphylogenic infection on the sole of one foot, which resulted in a suppurative lymphangitis that extended up the leg nearly to the knee and required extensive and free incision with drainage. It may be stated at once that the lymphangitis was cured and that under the care of his physician, Dr. O. M. Schwerdtfeger, who had called me into the case, the patient's stay of two months in the hospital resulted in an astonishing improvement in his general condition.

While the lesions in the face occasioned no pain or inconvenience except in shaving, they constituted so striking a deformity that the patient was anxious to have something done to make his face more presentable. It was obvious, even under superficial examination, that the lesions were produced by the pressure of calcareous or bony masses under the epidermis. To expect an absorption of these masses seemed hopeless; to wait for their slow disintegration and discharge was equally out of the question. The only rational therapy seemed to be the removal in toto of each of the masses by surgical means. This was done in a series of sittings under local anesthesia. To attempt to dissect out the bony masses or plates so as to preserve the overlying epidermis proved impossible, on account of the sclerodermatous atrophic cutis and epidermis and the proximity of the bony plates to the

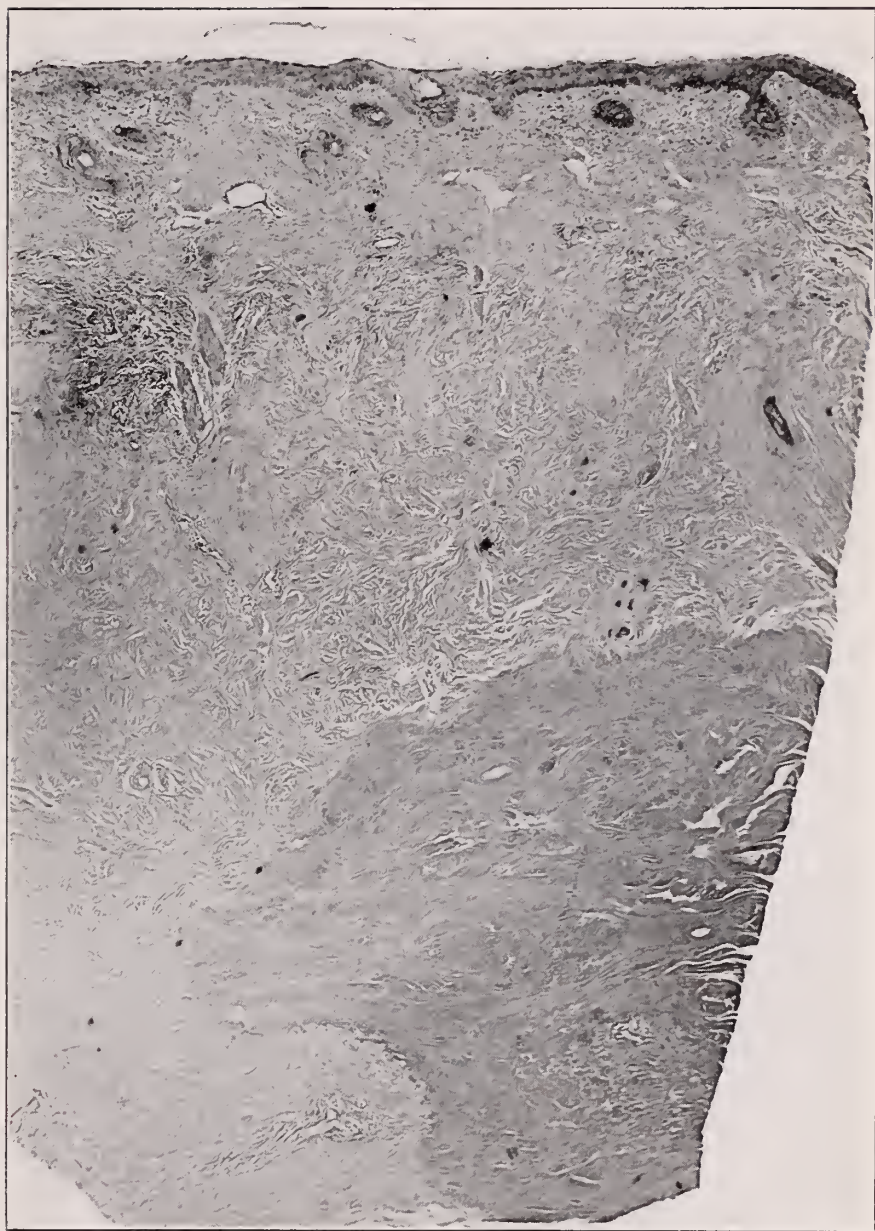


Fig. 2.—Showing a calcified area sharply demarcated from the normal connective tissue.

latter; the only available measure was to remove the bony plates together with the epidermis over them, en masse, and cover the defects with a skin-graft taken from the patient's thigh. When several ulcers with their bony or calcareous extensions were close together, as on the left cheek, (Fig. 1) the entire area was removed in one piece.* The various grafts "took" in every instance, and the resulting cure was entirely satisfactory from a cosmetic point of view. The large area in the left temporal region, which had not undergone ulceration was left untouched.†

HISTOPATHOLOGY

Abundant material for microscopic study of the lesions was obtained and a number of the specimens were carefully decalcified in nitric acid. I am indebted to Dr. Walter J. Heimann for the sections, and to Dr. George M. MacKee for the photomicrographs which illustrate this article.

The cutis and epidermis presented the classic features of old scleroderma—thin epidermis, condensed connective tissue in which few or only atrophic glands occur—and it does not seem necessary to give a detailed description of these tissues. The whole interest of the case lies in the bony masses which constitute its unique character. Lying in the atrophic cutis there were found extensive masses of altered connective tissue which was in part calcified and in part ossified. Except at the points at which the epidermis was broken down, where there were circumscribed areas of ulceration with the usual picture of leukocytic infiltration adjacent to the bony or calcareous mass that projected into the ulcer, there were no evidences whatever of any reaction on the part of the tissues provoked by the presence of the calcareous and bony masses. At points remote from the ulcers the perfect indifference of the tissue to the presence of these foreign masses was particularly obvious. Figure 2 is made from a section stained with hematoxylin-eosin which serves beautifully to differentiate the normal connective tissue from the tissues which have become calcified, the latter staining blue, the former red. While in some of the sections the calcified mass fills a large part of the field and extends irregularly from the lower margin of the cutis almost to the subpapillary layer, in most cases the calcified areas are arranged regularly in plates or layers that correspond more nearly with the normal anatomic arrangement of the tissues. The picture shows an irregular triangular mass in the lower

* This piece of skin presenting several ulcers with their projecting masses, preserved in Kaiserling, was exhibited at the meeting.

† NOTE.—One year later, March, 1918, this patch seems unchanged; a plate of cartilaginous hardness may be felt directly under the epidermis. This plate is located in a region in which it is not subject to injury from the natural movements of the skin, or from accidental external trauma.

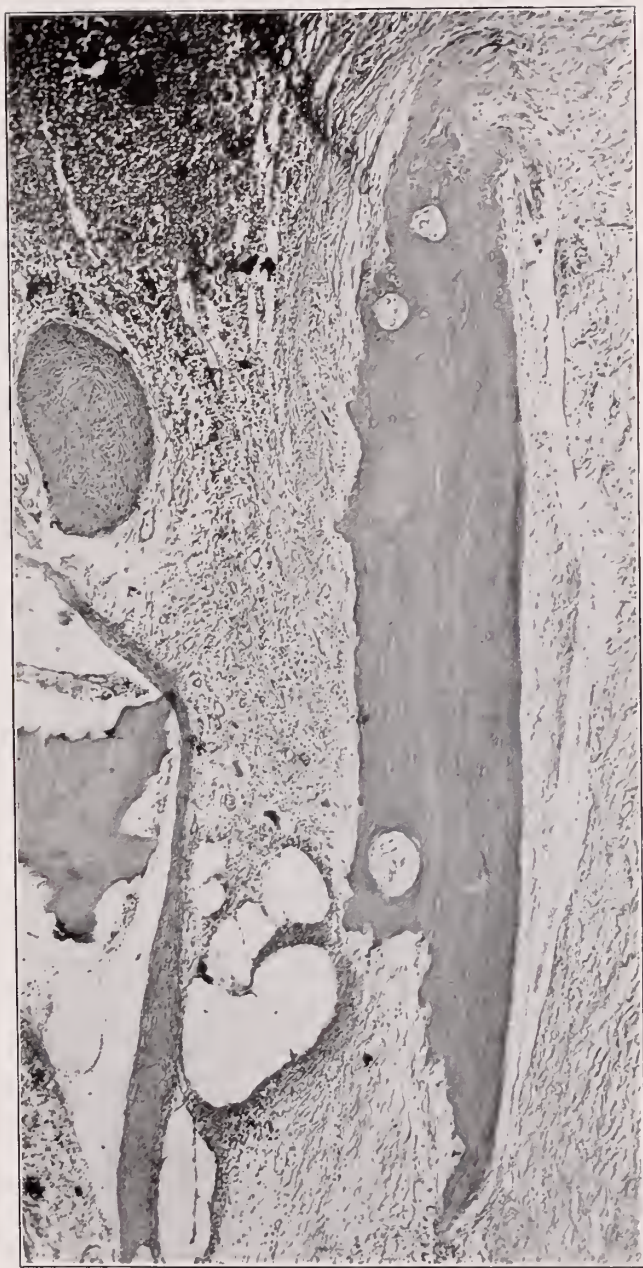


Fig. 3.—Cross section of a plate of ossified tissue.

portion of the cutis which was part of a large rod of bony consistency that before calcification could be felt like a spicule of bone about an inch long, under the skin. The calcified areas appear to be free from any nuclear elements and are composed of condensed, fused, homogeneous fibers of connective tissue. The borders of these masses are sharply marked. But here and there, probably where the calcification

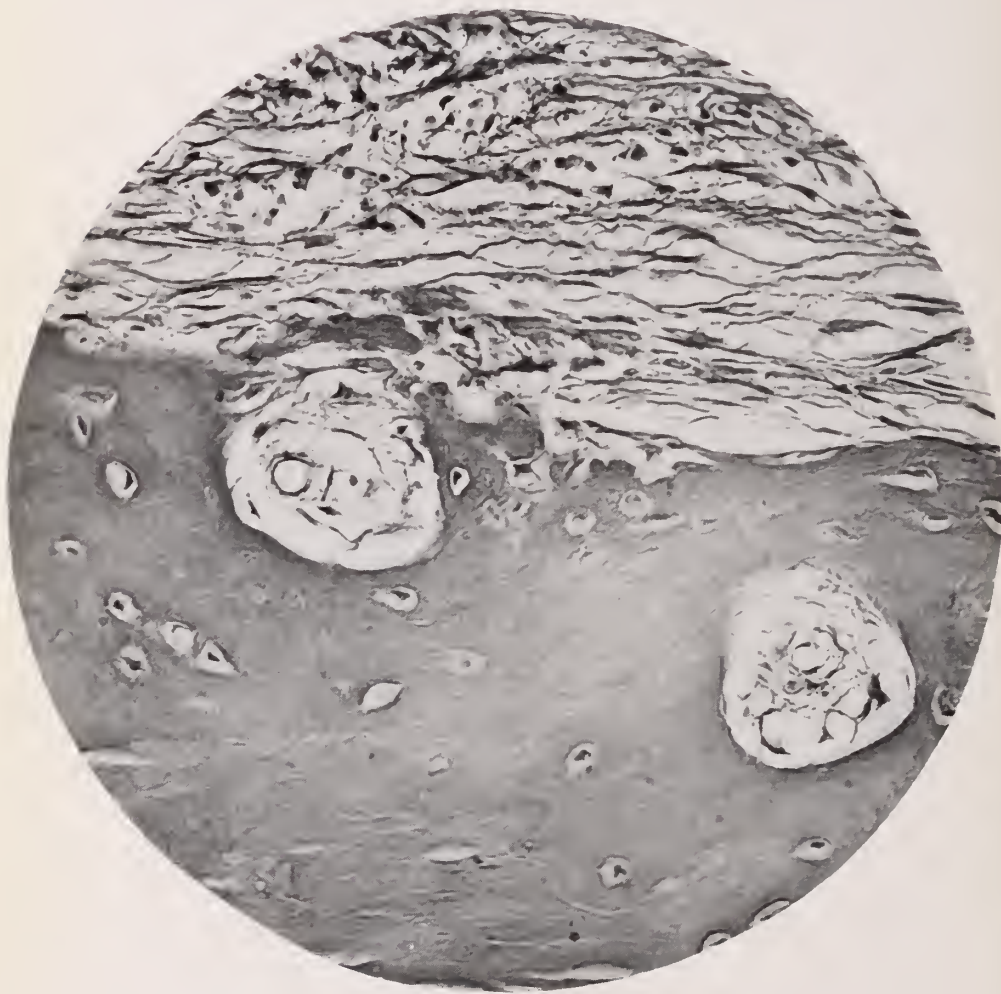


Fig. 4.—Showing the characteristic stellate bone-cells.

is still extending, the line of separation is not sharp and with a higher power of the microscope, minute islands of lime-salt deposits may be seen in the connective tissue fibers. These islands, stained blue in contrast with the red stain of the normal connective tissue fiber, do not appear as deposits on the thickened fibers, but seem to lie within the

fiber itself. The picture suggests an early stage of the calcification of the connective tissue fibers.

In Figure 3 the cross-section of a plate of ossified tissue in the lower middle zone of the corium is seen. A fragment of calcified tissue is seen lying in the defect in the epidermis, the ulcer through which it projected. Figure 4 presents a portion of the same field under higher power, and is intended to demonstrate the characteristic stellate bone-cells. The bone-cells occur mainly in the peripheral portions of the area and are most abundant at one extremity. There is no suggestion of a lamellar structure such as is seen in perfect bone.

SUMMARY

To sum up, the pathologic process begins with a calcification of the altered connective tissue fibers which become condensed and fused. After the deposit of lime-salts many of these areas remain unchanged, provoking no reaction in the cutis; or as a result of injury to the epidermis reach the surface. Some of these calcified areas undergo ossification.

1 West Seventieth Street.

ON A NEW FORM OF PUNCTIFORM KERATODERMIA *

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A punctiform hyperkeratotic eruption occurring on the hands and feet, particularly on the palms and soles, is a rare condition. Here-with, the writer submits the report of a peculiar type of punctiform keratoderma existing on the palms which is exceedingly interesting in its clinical as well as histologic features.

CLINICAL AND HISTOLOGIC FINDINGS

A girl, aged 19, showed the peculiar changes on her hands. On the palmar surface of the hands and fingers, strictly confined to the flexures of the joints, there were numerous miliary, horny, punctiform efflorescences, yellowish or light brownish in hue, from pinpoint to poppy-seed in size. The primary lesions were minute, slightly elevated, at times scarcely visible papules, oval or roundish in shape, showing a slight degree of hyperkeratosis. They usually appeared isolated, but some coalesced to form irregularly shaped eruptions and often showed slight desquamation in the center, so that some were slightly cupped at the summit. But a comedolike horny plug or central conical plug was never seen. The palms showed no hyperhidrosis. Diffuse keratosis was not present. There were no dilated sweat-orifices to be noticed; neither was an excentric growth of the lesion demonstrable.

On the backs of the first and third interdigital spaces of both hands, and the fourth space of the right hand, corresponding to the folds, several lesions, singly or in groups, were to be seen.

The distribution and arrangement of the lesions was quite peculiar and exhibited on both hands a well marked symmetry. The soles were intact.

The eruption appeared early in her childhood (before she was 5 years of age), but the patient was unable to give the exact date of its outbreak and course, as there was no subjective symptom. At any rate, that it ran an extremely slow course, was beyond doubt. No hereditary taint was ascertainable.

The patient was afflicted, furthermore, with so-called tuberculids on the ears, and the extensor surfaces of the elbows and knees.

HISTOLOGY: Four pieces of skin (Nos. 1 to 4) which exhibited the horny lesions (in toto six), were removed and examined in serial sections. They all showed practically the same features.

* Received for publication, Feb. 12, 1918.

* From the clinic of Dr. Matsuura.

The horny papule is produced by a circumscribed hypertrophy of the horny layers, exhibiting in places, parakeratosis to a slight degree. The horny layer tends to overgrow toward the outside as well as inside, so that there appear the characteristic microscopic features as shown in Figs. 3 and 4. The malpighian layer, on the other hand, appears to be very little altered. Acanthosis is not associated.

Through the full development of the horny formation, the papillary structure of the corium has quite disappeared under the greater part of the efflorescence (Fig. 3). There is no marked change in the



Fig. 1.—Showing the palms of the patient. Striking symmetry of the localization and distribution of efflorescences will be noted.

underlying corium but there is slight infiltration chiefly of mononuclear round cells, associated with dilatation of vessels in a slight degree.

The lesion showed no specific relation to the orifices of the glands of the skin.

DIAGNOSIS

Few cases of punctiform keratosis on the palms or soles, bearing more or less resemblance to the present one, are found in the literature. Below, they will be cited and differentiated:

(a) *Heloderma Simplex et Annularis* (Lörner)

This shows a horny eruption on the palms and backs of the hands, etc., which appears disseminated. Particularly, in its early stage of

development called "simplex," it resembles to a certain degree the present eruption. But, in Vörner's cases, the growth of the eruption is more rapid, showing an excentric extension. In addition, many other features are quite different.



Fig. 2.—Localization and form of the efflorescences are demonstrated.

(b) *Keratodermia Maculosa Disseminata Symmetrica Palmaris et Plantaris* (Buschke and Fischer)

This also presents minute punctiform hyperkeratoses and runs a chronic course. There is also a similar histologic finding. The eruption, however, is generally evidently larger than that of the present case, appearing simply in disseminated areas.

(c) *Keratoma Dissipatum Hereditarium Palmare et Plantare*
(Brauer)

The disease is characterized by disseminated horny papules appearing on the palms and soles of the hands and feet. The entire clinical features, however, are quite different. The disease is hereditary.

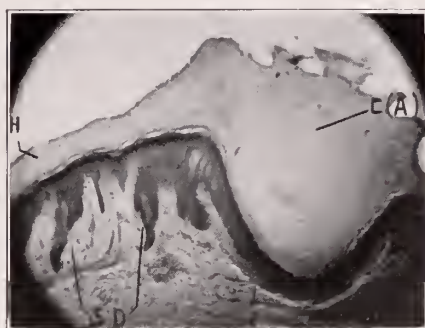


Fig. 3 (Prep. from No. 1).—Vertical section of an efflorescence excised from the fourth interdigital space. c(A), horny plug showing scaliness on the summit (localized hyperkeratosis with a trace of parakeratosis); H, normal horny layer; sd, sweat-duct; i, infiltration in slightest degree. Zeiss, oc. 1; obj.AA.

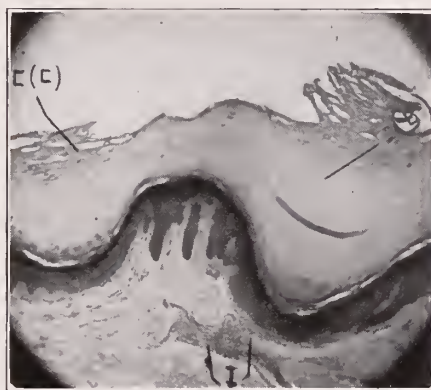


Fig. 4 (Prep. from No. 1).—Showing two keratotic efflorescences c(B) and c(C), occurring closely together. Changes as in No. 1. i, perivascular infiltration.

(d) *Disseminated Clavus of the Hands and Feet (Davies-Colley)*

The case of disseminated clavus of the hands and feet reported by Davies-Colley shows a resemblance to some extent, regarding the localization of the eruption. It presents also similar histologic features. But the entire clinical features are quite different.

(c) Porokératose Papillomateuse Palmaire et Plantaire (Mantoux)

Histologically, the case seems to be a keratotic angioma (?). The course is acute.

(f) Kératodermie avec Porokératose, etc. (Balzer et Germain)

Its primary lesions seem to bear a certain resemblance. No histologic examination was made. The disease runs rather an acute course.

*(g) Porokératose Papillomateuse Palmaire et Plantaire
(Beurmann et Gougerot)*

This bears a certain resemblance to Mantoux's case, but runs a more chronic course. This is not a pure punctiform hyperkeratosis.

(h) Kératodermie Palmaire avec Porokératose (Balzer et Boyé)

This is not a pure punctiform keratosis, but accompanied by diffuse hyperkeratosis. In addition, vesiculation is to be noticed.

(i) Cases such as those of Hallopeau et Claisse, Besnier, Hallopeau, etc., are not similar to ours. Porokeratosis Mibelli, verucca, clavus, arsenic keratosis, Darier's disease, lichen ruber, psoriasis, etc., can be readily differentiated.

Further, compare "A Peculiar Form of Porokeratosis" (Matsumoto), in which the hyperkeratosis occurred exactly at the sites of the orifices of sweat-ducts—porokeratosis in a strict sense of the term.

We are not able to identify the present case with any of the known punctiform hyperkeratoses of the palms and soles, owing to the fact that it differs greatly with regard to its localization and form. Therefore, this may be regarded as a new type of punctiform hyperkeratosis.

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ATROPHIA MACULOSO VARIOLIFORMIS CUTIS *

VARIOLIFORM MACULAR ATROPHY OF THE SKIN—A HITHERTO UNRECOGNIZED AND UNDESCRIBED ATROPHIC AFFECTION OF THE SKIN

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J. L., a man, aged 20, presented himself, Feb. 1, 1918, for examination and treatment for a facial disfigurement which at first glance presented the apparently unmistakable characteristics of the pitmarks of a long elapsed smallpox infection. Both cheeks were profusely studded with round or irregularly round, sharply defined shallow pitmarks, varying in size from a mustard seed to a split pea or somewhat larger in circumference, and were devoid of any evident active or inflammatory change. The writer assumed that the condition was incident to a previous attack of smallpox or chickenpox, and promptly discouraged any efforts for the purpose of remedying or improving the situation.

To the utter discomfiture of the writer, the patient stated that he had never incurred a previous attack of smallpox or chickenpox, and that he had never been troubled with blackheads or pimples. In fact, he had never incurred to his knowledge, any form of dermatologic affection which could predispose the changes for which he sought intelligent interpretation and relief. The pit-marks, first few in number, and very diminutive in size, made their initial appearance about one and one half years ago, without any subjective or objective inflammatory disturbance. They slowly enlarged in circumference, until they attained a fair degree of uniform development, and have steadily multiplied in number until both cheeks, from ear to nose and eye to the angle of the lower jaw, have been profusely and symmetrically studded with lesions.

The writer's skepticism was not entirely overcome by the patient's evident frankness and sincerity, until both the mother and sister were able to corroborate his statement in detail. The patient's father is a retired baker. The patient is 6 feet tall, weighs 180 pounds, is unusually robust and both physically and mentally well developed, and fills a trusted and responsible position of stockkeeper in a large wholesale drygoods establishment.

* Received for publication Feb. 14, 1918.

The lesions as already intimated, bear the most deceptive resemblance to the pit-marks of an old, healed variola. They are for the most part, round or irregularly round in outline. A few are distinctly kidney shaped. Quite a number are linear, with rectangular rather than tapering extremities, and measuring the fraction of a centimeter in length, and preserving a somewhat parallel arrangement to each other, following in a measure, the general lines of cutaneous development. The atrophy is distinct, but shallow, and best observed by reflected light, and the border is clean-cut and sharply defined. The lesions are entirely devoid of pigmentary change, and save for the atrophic change, conserve for themselves the general character and



Fig. 1.—*Atrophia maculosa varioliformis cutis*. Both cheeks from ear to nose and eye to the angle of the lower jaw are studded with clean-cut and sharply defined atrophic spots.

appearance of the normal skin. On very close inspection a few of the lesions here and there show a very faint, almost microscopic central furfuraceous desquamation. A few faint rose red, pinhead sized points are also observable on close inspection, which the patient states are incipient lesions. The redness is quickly lost when the lesion attains mustard seed size, and is substituted by atrophy and occasionally with very faint furfuraceous desquamation.

The writer was unable to discover any local or general predisposing cause for the atrophic change. The skin of the patient's face, scalp and body was unusually clear, and entirely free from any change that could predispose subsequent atrophy. There were no comedones or papules on any part of the body. The scalp was perfectly normal.

There was no trace anywhere of an acne varioliformis, lichen planus or hypertrophicus, no syphilis, scleroderma, morphea, or any other form of dermatosis that could predispose atrophic changes.

The writer has never encountered any case of similar character in his personal experience, and is unable to find its analogue in the dermatologic literature. It must be naturally classed with cutaneous atrophies, and in the absence of any well defined causative factor, with the cutaneous atrophies of obscure or indeterminate cause, in the so-called spontaneous or idiopathic atrophies of the skin. It must naturally fall close to the morphea group, of the general class of sclerodermas. It can be easily differentiated from the circumscribed sclero-



Fig. 2.—Showing the pitmarks distributed over the left cheek.

dermas, or so-called morphea, by the entire absence of early infiltration and boardlike hardness, by the multiple character, diminutive size of the lesions, their sharply defined roundish character, clean-cut outlines, and the absence of discoloration and pigmentary change. Its symmetrical distribution and localization to the cheeks, are further differential characteristics. Further, the affection should not be classed or comprised with the additional group of circumscribed sclerodermas, namely, the so-called "white spot disease." It is easily differentiated by the entire absence of scaly, silvery white lesions, and their irregular and less sharply defined outline; the white spot lesions are uniformly larger, more widely distributed, and rarely, if ever, involve the face.

There is probably some additional evidence in this instance for placing varioliform macular atrophy of the skin in the scleroderma group.

The thyroid gland in this particular case was not palpable on careful examination. The patient, who was otherwise normal, manifested a distinct tremor, and complained of palpitation and shortness of breath on unusual exertion. The hair, nails and skin, however, were otherwise normal. The diminutive character of the lesions merits for the affection the name macular, and their deceptive resemblance to the healed cicatrices of variola, the further qualifying term of varioliformis.

TITRATION OF COMPLEMENT FOR ITS POWER TO COMBINE IN THE SYPHILITIC SYSTEM *

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It has long been recognized that the serum test for syphilis is a quantitative reaction, in which the correct measurement of the various elements is of the greatest importance. An increase in the amount of human serum over 0.2 c.c.,[†] the use of too strong antigen or too small an amount of complement may result in false positive reactions with nonsyphilitic serum, or the too generous use of complement may give a weak reaction in which all weakly positive syphilitic serums will show as negative. It is the constant effort of serologists to hold their tests at the point of highest efficiency, where all truly positive serums will so react, while no nonsyphilitic serum will give a positive result. The difficulty of estimating the amount of complement necessary to hold the tests at the correct strength has been one of the greatest problems of serology, and various attempts have been made to solve it. The original method of Wassermann, fixing 0.1 c.c. of mixed guinea-pig serum as the correct amount for every test, was soon discarded as allowing too great variation in the strength of the tests. Boas,¹ in a series of titrations of the strength of fresh complement, found that it varied from 0.04 to 0.07 c.c. in its titer (the amount necessary to hemolyze completely 1 c.c. of 5 per cent. sheep corpuscle suspension with $2\frac{1}{2}$ titers of amboceptor). A series of ten titrations of fresh guinea-pig serum, care being taken to centrifuge the same quantity of sheep corpuscles at the same speed for the same length of time for each titration, has given me titers from 0.015 to 0.025 c.c. These values were obtained with a 4 per cent. blood suspension, sensitized for at least ten minutes with $2\frac{1}{2}$ units of amboceptor, and the guinea-pig serum was obtained each time by bleeding to death a single animal. They correspond closely to the figures given by Boas. Differences in the strength of corpuscle suspension can easily increase the variations.

The necessity for titration of complement being apparent, it was recognized that allowance must be made, as Wassermann and his

* Received for publication Feb. 15, 1918.

[†] All quantities refer to the 5 c.c. Wassermann reaction.

1. Boas, H.: Die Wassermannsche Reaktion, Ed. 2, 1914, p. 25.

co-workers had shown, for the anticomplementary action of other constituents of the test, and twice the titer was established as the correct amount of complement for use in the final reaction. This was soon found excessive in many cases, and smaller fractions in excess of the titer were allowed, empirically, without successfully eliminating the variability in the strength of reaction.

In the effort to find a method more exact, Thomsen estimates the amount of complement necessary for this allowance by titrating it in the presence of the full dose of antigen. As an example of the results with this method, Baos¹ gives 0.08 c.c. as the titer obtained in this way with complement that titrates 0.05 c.c. in the hemolytic system. Browning and McKenzie² titrate complement for its hemolytic strength. They then titrate it against antigen in one series, against the serum to be tested in a second, and against the combined serum and antigen in a third. At the time of reading, the next morning, if the third series has bound 5 or more hemolytic units of complement beyond the sum of the binding power of antigen and serum alone, the result is read as positive. This extensive system, carried up to 60 units of complement, is made possible by using five titers of amboceptor, thus obtaining a very small complement unit.

Thomas and Ivy³ use 0.1 c.c. of pooled negative serums plus the full dose of antigen. Complement is titrated against this, incubated, and then amboceptor and blood suspension added. As a sample of their results, they give a titer by this method of 0.05 c.c. of complement that titrates 0.04 in the hemolytic system. The first of these methods estimates the anticomplementary power of antigen only. The third is subject to added unknown factors, for the pooling of several negative serums sometimes results in a strongly anticomplementary mixture. The method of Browning and McKenzie has not become popular, probably because of its cumbersomeness.

NEW METHOD DESCRIBED

In the effort to increase the stability of the Wassermann tests, a standard positive control has been evolved⁴ which gives an accurate gauge of strength of reaction. A number of very strong positive serums are preserved by the method of Reudiger⁵ by adding an equal

2. Browning and McKenzie: On the Complement Containing Serum as a Variable Factor in the Wassermann Reaction. *Ztschr. f. Immunitätsf.*, 1909, 2, p. 459.

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5. Reudiger, E. H.: Preservation of Human Serum for Wassermann Reaction, *Philippine Jour Sci.*, 1916, 11, B., p. 87.

amount of glycerin. These are then mixed, and the mixture titrated as the positive control with each set of tests. After the titer (that is, the smallest amount giving complete fixation of complement) of this control has been established with the Wassermann reactions at their highest efficiency, the effort is made to hold them at this point. A method of showing the ability of complement to bind syphilitic serum with antigen seems desirable, as Ottenberg⁶ suggests.

In order to accomplish both these ends, four-tenths the titer of the above positive control is combined with the full dose of antigen, and complement titrated against this mixture, allowing a half hour in the water bath for fixation, sensitized corpuscles then being added. The smallest amount of complement giving complete hemolysis after a second incubation for half an hour is used as the unit for the Wassermann reaction proper. The unit so found has varied in 25 of 26 of such titrations from one and one-fourth to twice the hemolytic unit. For instance, if complement titrates 0.04 c.c. in the hemolytic system, the unit for the syphilitic system may be anywhere from 0.05 to 0.08 c.c. As the complement gets old, even before its hemolytic activity grows less and the titer increases, its ability to be fixed by the combination of syphilitic reagin and antigen diminishes, as Margarethe Stern⁷ long ago demonstrated.

The other titration of the series just cited (No. 20 in the table) gave a combining unit only $1\frac{1}{6}$ times the hemolytic unit. Such complement is unsafe, even though its hemolytic titer has not diminished in the least. It was nine days old and was, in addition, infected. Fresh complement titrated the same day, gave a good margin between the hemolytic and syphilitic titers. Stern warns against the use of old complement for fear of missing weak positive reactions. Even though the syphilitic titer is known, the use of an amount of complement so near the hemolytic titer adds the risk of obtaining too strong or too weak a reaction from slight inaccuracies in measurement.

The hemolytic unit of complement in this series was always checked, according to the method of Browning and McKenzie,² by a second titration in which the diluted complement is exposed to the same shaking and incubation as that titrated with the syphilitic system. The table gives a series of titrations with complement of different ages, showing the difference between the hemolytic and syphilitic titers and the variations in the strength of the Wassermann reaction performed with the syphilitic titer. Complement has been preserved by the addi-

6. Ottenberg, R.: On the Reliability of the Wassermann Reaction, *Arch. Int. Med.*, 1917, 19, p. 456.

7. Stern, M.: Zur Technik der Serodagnostik der Syphilis, *Berl. klin. Wchnschr.*, 1908, p. 1489.

tion of a small amount of sodium chlorid and refrigeration at from 5 to 10 C.

COMMENT

In eight of the twenty-six tests the control showed a weak reaction, its titer, 0.02 c.c., giving 70 per cent. hemolysis or over. Cases 7 and 11 might be explained as due to old complement, in which the margin between hemolytic and syphilitic titers had become so small that very slight variations in the amount of complement cause disproportionate variations in the strength of reaction. The same explanation would serve for Case 12, giving a 50 per cent. positive reaction with 0.01 c.c.,

SHOWING THE DIFFERENCE BETWEEN HEMOLYTIC AND SYPHILITIC TITERS AND VARIATIONS IN THE STRENGTH OF THE WASSERMANN REACTION

Age of Complement	Hemolytic Titer in C C	Syphilitic Titer in C C	Relation of Latter to Former	Strength of Wassermann Reaction
1.—8 days	0.015	0.03	Twice	Correct
2.—Fresh	0.02	0.035	$1\frac{3}{4}$ times	Weak
3.—2 days	0.015	0.025	$1\frac{2}{3}$ times	Correct
4.—5 days	0.015	0.025	$1\frac{2}{3}$ times	Weak
5.—7 days	0.015	0.025	$1\frac{2}{3}$ times	Correct
6.—9 days	0.015	0.03	Twice	Correct
7.—12 days	0.04	0.05	$1\frac{1}{4}$ times	Weak
8.—Fresh	0.05	0.08	$1\frac{5}{8}$ times	Correct
9.—2 days	0.015	0.03	Twice	Correct
10.—7 days	0.02	0.03	$1\frac{1}{2}$ times	Correct
11.—10 days	0.02	0.025	$1\frac{1}{4}$ times	Weak
12.—12 days	0.02	0.025	$1\frac{1}{4}$ times	Strong
13.—14 days	0.02	0.025	$1\frac{1}{4}$ times	Correct
14.—Fresh	0.03	0.05	$1\frac{2}{3}$ times	Correct
15.—2 days	0.04	0.05	$1\frac{1}{4}$ times	Correct
16.—4 days	0.04	0.06	$1\frac{1}{2}$ times	Correct
17.—Fresh	0.02	0.03	$1\frac{1}{2}$ times	Correct
18.—2 days	0.02	0.04	Twice	Correct
19.—6 days	0.035	0.07	Twice	Weak
20.—9 days	0.06	0.07	$1\frac{1}{6}$ times	Correct
21.—Fresh	0.015	0.025	$1\frac{2}{3}$ times	Weak
22.—3 days	0.03	0.04	$1\frac{1}{3}$ times	Correct
23.—7 days	0.025	0.04	$1\frac{3}{5}$ times	Weak
24.—Fresh	0.035	0.07	Twice	Correct
25.—4 days	0.06	0.08	$1\frac{1}{3}$ times	Correct
26.—8 days	0.07	0.1	$1\frac{3}{4}$ times	Weak

half the titer of the control. No such explanation will serve, however, for Cases 2, 4, 19, 21, and 26, in all of which the complement was comparatively fresh and showed a good margin between the two titers. It is hoped that greater care in titrating will avoid such variations in the future. The apparently irrational variations in the ratio in Case 6, in which it was twice the hemolytic titer and gave a correct Wassermann reaction, while in Case 4 the same complement gave a ratio of one and two-thirds and a weak Wassermann reaction, is still more difficult of explanation. The new method does not by any means eliminate all difficulties, but since it has been used the tests have been held much closer to the point of maximum efficiency than was possible formerly.

Parallel titrations of complement with syphilitic liver antigens and cholesterinized heart antigens have given results corresponding closely

with those obtained with plain guinea-pig heart antigen, which has been used as a routine because of its reliability and cheapness. The titer of the positive control varies somewhat with different antigens, and this must be taken into account when they are used for complement titration. The use of the serum of a single guinea-pig as complement gives some variation in the strength of different antigens, which can be avoided by using mixed serums. The affinity of certain human serums for certain antigens must be met by the use of several antigens with each human serum.

The glycerinized positive control, made up of several strong positive serums to eliminate special affinity for certain antigens, remains constant in strength for months. Before one such control becomes exhausted another can be made up and standardized by a few titrations parallel to the old control. The sensitiveness of the positive control can be varied easily by using larger or finer gradations in titration. The one in present use by me has a titer of 0.02 c.c., and is titrated with 0.05, 0.03, 0.02, 0.015, and 0.01 c.c.

The method must be adjusted by each serologist to his own technic and materials. This is not difficult, and once accomplished, the extra titration need not add greatly to the intricacy of the Wassermann reaction. My tests are allowed a half hour in the water-bath at 37 C. for fixation, then sensitized corpuscles are added and the tests left a half hour in the water-bath. The final reading takes place the next morning, the tests remaining in the refrigerator for about eighteen hours. Four-tenths of the titer of the positive control is the proper amount for the titration of complement for this technic. However, it may not be the correct amount for others.

SUMMARY

1. The use of a mixture of glycerinized strong positive serums, titrated with each set of Wassermann tests as a positive control, gives an accurate idea of the strength of the Wassermann reaction.

2. Titration of complement against the combination of antigen with a fraction of the titer of this positive control gives valuable information as to the combining power of complement in the syphilitic system.

3. By the use of this method of titration, variations in strength of the Wassermann reaction can be minimized.

4. Old complement is apt to lose its power to combine in the syphilitic system before its hemolytic value fails. Such variations are detected and estimated by the new method of titration.

STATISTICAL REPORT OF THE AMERICAN DERMATOLOGICAL ASSOCIATION FOR THE YEAR 1916*

The last statistical report of the members of the Association was made for the year 1911. It was then decided to discontinue the annual reports which had been made without interruption for thirty-four years and hereafter make these reports for every fifth year. The report herewith submitted for the year 1916 is the first of these quinquennial reports.

Your committee offers its congratulations and thanks to the members of the Association for the hearty response made to its request for statistical reports. Thirty-one reports for the year 1916 were received for seventeen cities and yielded a total of 58,387 cases, more than twice the average number of cases reported during the last ten years of our annual reports.

Among the rare skin diseases reported by the members the following may be mentioned: Acanthosis nigricans, 3 cases; acrodermatitis, 3; actinomycosis, 5; blastomycosis, 26; granuloma fungoides, 20; impetigo herpetiformis, 1; Darier's disease, 6; pemphigus vegetans, 6; porokeratosis, 7; sporotrichosis, 6; xeroderma pigmentosum, 24.

The common skin diseases show with few exceptions but little variation from the normal averages. It is interesting to note that the proportion of cases labeled eczema has again fallen, that while forty years ago one-third of all cases seen by our members were called eczema, this year only one-sixth were designated with this term. This sifting process has been continuous throughout the four decades of our annual reports and it seems not unlikely that we shall continue still for some years to remove from the larger group called eczema more and more special forms till that complex fraction of dermatology is reduced to its lowest terms.

One of the diseases formerly included under eczema, the chronic circumscribed eczema of the Vienna school, now known as lichen simplex, is included in our current list for the first time. That the disease is by no means rare is well known to those who are acquainted with it. But it is obvious from the reports that a large number of our members still include the disease under eczema. Thus, while one report shows four cases of lichen simplex per thousand, another five, and another eight per thousand, there are seven reports covering a total of 15,000 cases of all skin diseases which do not report a single case of lichen simplex.

*Received for publication March 5, 1918.

The scabies ratio for the year has again fallen, continuing the declining curve noted in our summary published five years ago. You will recall the fact that the proportion of cases of scabies reported, after reaching 6 per cent. in the late eighties, declined to less than half that figure in 1895 and, after remaining stationary until 1901, suddenly and rapidly rose to nearly 10 per cent. of all cases seen in 1905 and then again dropped to about 5 per cent. in 1911, the last year for which we have a report. For the current report the ratio is only 3.2 per cent. I venture to predict that during the next year or two the assembling of large bodies of recruits in camps and the shifting of large masses of men will result in a great increase in the number of cases of this disease.

The cancerous diseases constitute $2\frac{1}{3}$ per cent. of all cases reported, the highest percentage yet attained in our joint records. The cancer curve in our reports has been a steadily ascending line and in this respect our statistics of skin cancer support the generally accepted view that cancer in general is on the increase.

On the other hand, the tuberculous diseases again show a fall below the general average of these diseases even though we have included the tuberculids in this report for the first time. With this addition the proportion of tuberculous diseases exactly equals that shown in our last annual report of five years ago. It is a safe conclusion from our statistics that the tuberculous skin diseases are not on the increase in this country.

Syphilis still holds numerically the second place in our statistics. Over 7,500 cases are reported by our members for the past year, constituting 13 per cent. of all cases seen. The percentage is up to the highest in our records and is nearly 3 per cent. above the general average for this disease. The conclusion that there has been an increase in the number of cases of syphilis, however, is not warranted. The recent awakening of the profession to the importance of treating the asymptomatic cases of the late stage with a view to preventing the grave visceral lesions of this period has brought about a great change in our practice in the treatment of syphilis. The Wassermann-positive syphilitic who happens to be free from obvious lesions is not less the proper object of energetic treatment than is the victim of a facial gumma and it is no doubt the large increase in the number of asymptomatic syphilitics and of those with visceral lesions who until a few years received the current treatment with iodids or mercury by mouth or were not treated at all, that has swelled our syphilis total. It is a good omen for the future that, on the one hand, the patients with early lesions receive energetic treatment controlled by Wassermann tests and, on the other, that the patients are not discharged as soon as obvi-

COMBINED RETURNS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION FOR THE YEAR 1916, FROM JANUARY 1 TO DECEMBER 31, INCLUSIVE

	Ann Arbor	Buttalo	Boston	Chicago	Cincinnati	Detroit	Kansas City	Milwaukee	Newark	New Haven	New York	Omaha	Philadelphia	St. Louis	St. Paul	San Francisco	Washington	Total	Per Cent.
Abscess:	1	1	15	11	16	19	2	3	2	30	125	...	...	1	...	12	17	264	.452
Acanthosis nigricans:	...	...	1	...	...	1	...	...	...	...	1	...	...	...	...	...	...	3	.005
Acrodermatitis (graft itch):	...	...	2	4	1	2	3	...	...	...	...	...	...	...	...	...	1	3	.005
Aene varioliformis:	...	...	595	371	88	225	27	87	157	1	20	...	...	2	...	8	...	51	.087
Aene vulgaris:	...	...	...	...	...	...	...	...	...	...	1618	24	58	38	38	150	439	4,153	7.112
Actinomycosis:	1	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	...	5	.006
Adenoma sebaceum:	...	...	1	6	2	12	2	...	...	2	2	3	...	...	2	...	...	30	.051
Adenoma sudoriparum:	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	5	.008
Albinism:	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	.000
Albinismus (a) generalis:	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	.001
Albinismus (b) localis:	...	...	...	...	...	...	4	...	...	...	...	2	...	...	...	...	...	10	.017
Alopecia:	1	...	283	108	10	56	...	9	...	70	10	5	2	6	20	21	102	713	.142
Alopecia areata:	10	2	62	57	8	23	14	9	22	27	176	3	9	3	12	17	46	568	.870
Alopecia furfuracea:	...	...	294	106	...	15	146	150	37	59	...	...	...	...	...	2	...	809	1.385
Angio-keratoma:	...	...	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	4	.006
Angioma:	2	2	27	22	...	5	...	8	...	1	33	...	...	...	9	1	...	203	.006
Angioma cavernosum:	2	1	...	...	...	5	6	...	4	2	3	...	...	...	3	...	1	119	.023
Angioma serpiginosum:	...	...	...	...	...	5	...	1	...	...	...	...	...	...	...	...	...	39	.049
Androsia:	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	13	.022
Anthrax:	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	.006
Atrophia maculata et striata:	...	...	...	...	...	1	1	...	2	...	1	...	...	...	...	...	...	...	.008
Atrophia senilis:	...	...	...	5	1	7	2	...	...	...	3	1	...	...	...	...	2	4	.005
Atrophia unguis:	...	...	...	...	...	5	8	...	...	...	...	...	...	...	...	...	1	20	.034
Atrophoderma diffusum (acrodermatitis atroph.):	...	...	...	1	...	3	2	...	1	...	7	...	...	...	...	...	...	14	.023
Blastomycosis:	1	...	4	9	3	2	1	1	1	...	1	...	...	...	1	...	...	2	.044
Bromidrosis:	...	1	4	8	...	...	4	...	3	1	4	...	...	3	1	2	4	43	.073
Callositas:	...	...	49	21	...	...	4	2	2	3	23	3	...	...	9	6	12	136	.232
Candides:	...	...	10	10	2	2	2	...	...	9	...	...	1	2	...	...	6	46	.078
Carbunculus:	1	2	1	20	8	1	8	...	...	5	12	...	...	...	3	2	21	85	.145
Carcinoma lentiginale et tuberosum:	...	...	...	54	6	...	...	4	...	6	4	1	...	...	...	1	...	76	.130
Carcinoma "en cuirasse":	1	...	...	3	...	...	3	...	...	...	...	...	...	...	...	...	3	10	.017
Cheilitis exfoliativa:	...	...	2	8	1	...	...	4	2	2	7	...	...	...	...	...	...	1	.061
Cheilitis glandularis:	6	...	...	...	...	...	4	2	2	2	...	...	...	...	...	6	1	36	.061
Chloasma:	5	1	25	18	5	15	7	1	4	5	33	1	1	2	...	4	30	158	.270
Cleatrix:	...	...	31	18	...	14	2	2	2	...	5	...	...	2	...	6	5	76	.130
Clavus:	2	...	19	21	...	14	4	...	1	6	2	...	...	1	4	1	29	108	.184
Comedo:	...	...	92	17	2	185	4	7	...	...	32	...	35	...	25	10	88	497	.851
Condyloma acuminatum:	...	...	...	27	8	6	9	1	...	3	15	...	1	...	...	...	11	90	.154
Cornu:	5	...	3	2	...	1	...	...	2	1	...	...	...	...	1	2	2	13	.022
Dermatitis actinica (sunburn and radio-dermat.):	...	...	15	24	2	19	7	2	2	3	19	2	...	...	...	2	10	107	.183
Dermatitis callosa:	3	...	15	53	4	4	2	3	...	7	51	3	1	4	...	4	4	138	.270
Dermatitis exfoliativa:	2	...	7	3	...	5	3	2	1	3	...	...	...	...	3	2	1	38	.065
Dermatitis facialis:	2	...	4	2	...	6	3	1	...	...	12	...	...	...	1	2	3	35	.059

[illegible]

COMBINED RETURNS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION FOR THE YEAR 1916, FROM JANUARY 1 TO DECEMBER 1, INCLUSIVE—Continued

	Ann Arbor	Buffalo	Boston	Chicago	Cincinnati	Detroit	Kansas City	Milwaukee	Newark	New Haven	New York	Omaha	Philadelphia	St. Louis	St. Paul	San Francisco	Washington	Total	Per Cent.
Lichen ruber (pityriasis rubra pilaris).....	.....	.....	1	.....	.....	2	.....	1	.....	.....	10	.....	.....	.....	1	.....	3	18	.030
Lichen scrofulosorum.....	.....	.....	.....	17	6	10	7	1	.....	1	.....	.....	.....	.....	1	.....	.....	8	.005
Lichen simplex (Vidal).....	14	.....	.....	17	.....	.....	.....	1	.....	.....	37	.....	.....	.....	.....	.....	.....	102	.174
Lingua geographica.....	.....	.....	.....	.....	.....	.....	3	6	.....	.....	5	2	1	.....	.....	2	3	93	.083
Lipoma.....	3	.....	.....	28	3	2	3	2	1	.....	6	.....	.....	.....	.....	.....	.....	56	.025
Lupus erythematosus.....	.....	.....	.....	.....	.....	.....	8	6	10	12	72	1	6	.....	20	11	16	276	.472
Lupus vulgaris.....	5	.....	.....	40	13	7	.....	.....	.....	9	27	.....	.....	.....	8	4	10	150	.256
Lymphangiectasis.....	.....	.....	.....	.....	.....	10	2	4	4	.....	.....	.....	.....	.....	.....	.....	.....	2	.003
Lymphangiomata.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.003
Lymphangioma circumscriptum.....	3	.....	.....	1	.....	3	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	8	.013
Lymphangitis.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	12	.020
Melanoderma.....	.....	4	.....	10	2	2	.....	3	.....	1	6	.....	.....	.....	2	.....	.....	31	.035
Miliaria rubra (prickly heat).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21	.033
Miliaria crystallina (Sudamen).....	9	.....	26	15	1	3	1	12	.....	19	39	.....	10	43	.....	7	20	205	.351
Milium.....	1	.....	11	14	1	6	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	.....	23	.039
Mollescent.....	8	.....	12	17	1	5	7	8	1	4	23	1	.....	.....	4	6	17	103	.176
Monilethrix.....	.....	.....	.....	.....	.....	1	5	7	.....	1	.....	.....	.....	.....	6	.....	4	95	.162
Morbus Addisoni.....	.....	.....	.....	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.010
Morbus Raynaudii.....	.....	.....	.....	2	.....	6	1	1	.....	3	.....	.....	.....	.....	1	.....	.....	15	.025
Morphea.....	1	.....	8	3	.....	.....	.....	2	1	.....	.....	.....	.....	.....	2	7	3	27	.046
Mycetozoa.....	.....	.....	.....	3	.....	2	3	.....	.....	1	8	.....	.....	.....	.....	.....	.....	33	.056
Myoma.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	.000
Myxoedema.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.003
Naevus fibrosus.....	.....	.....	.....	1	.....	1	.....	4	.....	.....	2	.....	.....	.....	.....	.....	.....	8	.013
Naevus linearis.....	1	.....	6	35	1	3	3	4	.....	5	.....	2	.....	.....	1	.....	.....	63	.107
Naevus papillaris.....	.....	.....	4	.....	.....	1	3	.....	1	2	5	.....	.....	8	2	.....	2	27	.046
Naevus pigmentosus.....	1	.....	7	1	1	1	.....	.....	8	3	.....	4	.....	.....	.....	.....	4	21	.036
Naevus pilosus.....	16	.....	2	45	4	9	11	4	.....	47	.....	.....	.....	2	8	5	16	232	.397
Naevus vascularis.....	3	.....	16	.....	2	6	6	2	.....	3	.....	.....	.....	.....	.....	.....	6	49	.084
Neurofibroma (v. Recklinghausen).....	8	.....	39	34	1	8	11	7	39	10	27	4	11	.....	9	10	22	242	.414
Neurona.....	.....	2	1	1	1	1	.....	.....	.....	1	.....	.....	.....	.....	.....	1	1	8	.013
Edema angioneuroticum.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.005
Onceliths.....	1	8	2	2	6	3	2	3	1	.....	5	2	.....	.....	.....	.....	6	44	.075
Onceliths.....	.....	4	.....	9	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	4	3	74	.126
Onceliths.....	1	.....	5	.....	1	4	5	.....	.....	5	39	2	9	.....	.....	1	8	83	.142
Onceliths.....	.....	1	.....	1	1	.....	.....	.....	.....	.....	7	.....	.....	.....	1	.....	1	14	.023
Parakeratosis (parapsoriasis).....	.....	3	.....	1	2	4	1	2	2	2	.....	.....	.....	.....	.....	.....	.....	28	.041
Paronychia.....	1	.....	101	2	2	2	2	2	7	6	60	.....	1	4	.....	3	9	192	.328
Pedunculosis capitis.....	1	.....	124	.....	.....	19	2	2	.....	311	.....	.....	.....	17	13	5	30	650	1.113
Pedunculosis corporis.....	.....	246	33	33	3	5	1	.....	1	19	88	.....	.....	24	2	2	12	426	.729
Pedunculosis pubis.....	.....	.....	15	15	6	3	5	3	2	4	24	.....	5	.....	8	10	14	91	.155
Pellagra.....	3	.....	6	2	3	2	2	3	.....	.....	.....	.....	.....	.....	.....	.....	9	24	.041
Pemphigus.....	1	.....	4	2	3	2	2	.....	1	1	7	.....	.....	.....	2	.....	1	26	.044
Pemphigus vegetans.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.010
Pemphigus.....	1	.....	25	7	1	2	3	5	.....	7	59	2	.....	.....	1	9	10	144	.246
Pneumonia diffusa.....	.....	.....	.....	.....	.....	9	.....	.....	.....	.....	22	.....	4	.....	6	.....	.....	22	.037

Pityriasis rosea.....	9	103	51	3	14	9	3	10	10	172	1	9	10	2	27	49	482	825	
Pityriasis rubra (Hebra).....	...	...	...	...	...	...	...	...	...	4	7	...	...	...	...	...	4	.006
Pityriasis rubra pilaris (lichen ruber).....	3	...	1	1	...	...	...	...	...	...	...	1	...	...	...	1	117	.029
Pityriasis simplex.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pityriasis versicolor.....	23	66	48	4	5	5	8	3	4	110	2	13	4	...	11	19	327	.066	
Porokeratosis.....	...	...	1	...	6	...	...	...	...	...	...	...	...	...	...	...	7	.011
Pompholix (dysidrosis).....	7	29	13	9	...	14	3	10	4	160	1	6	5	...	9	8	278	.476	
Prurigo.....	...	...	3	1	...	...	...	...	...	27	...	2	2	...	...	3	36	.061
Prurigo nodularis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pruritus.....	20	151	138	10	7	11	18	38	12	186	12	1	15	23	42	46	741	1.269	
Psoriasis.....	42	7	278	205	40	37	17	32	30	97	590	16	50	30	51	121	2,155	3,670	
Purpura.....	...	20	12	4	6	6	3	3	4	35	...	...	...	2	5	7	109	.156
Rhinoscleroma.....	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	3	.005
Rosacea.....	5	3	90	100	22	12	5	27	14	38	167	11	7	8	24	38	578	979	
Rubella (German measles).....	...	1	...	...	...	...	...	...	...	18	...	...	...	...	...	4	32	.054
Rubeola (measles).....	1	...	6	...	...	...	...	...	...	14	...	...	...	...	1	7	41	.070
Sarcoid.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sarcoma.....	3	2	7	...	...	...	...	...	...	7	1	...	1	...	1	15	50	.085
Scabies.....	33	2	209	104	18	41	11	53	88	858	4	33	10	17	169	219	1,873	3,207	
Scariatina.....	3	...	1	10	...	3	1	12	...	3	2	...	...	1	...	1	37	.063
Sclerema neonatorum.....	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	8	.013
Scleroderma.....	1	10	2	1	7	3	2	...	...	14	...	1	...	2	...	3	46	.078
Serofuloderma.....	3	1	...	7	...	...	...	...	...	13	...	...	...	1	3	10	45	.077
Serofuloderma.....	125	7	455	101	16	11	11	...	14	13	96	32	11	11	16	138	84	1,141	
Seborrhea.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sporotrichosis.....	...	2	...	2	1	1	...	...	...	...	...	...	...	...	...	...	6	.010
Steatoma (wen).....	...	14	62	1	9	5	3	4	5	16	...	4	2	...	9	5	139	.238	
Sycosis lupoides.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	.009
Sycosis vulgaris.....	7	2	59	40	6	14	9	3	15	8	85	6	6	1	19	20	322	.551	
Syphilis I. Primary.....	130	...	72	123	26	38	23	5	25	12	123	3	4	...	21	103	31	739	
Syphilis II. Early.....	152	1	549	195	143	110	31	7	87	25	508	7	31	2	18	139	171	2,176	
Syphilis III. Late.....	437	5	710	857	64	236	27	38	129	108	1,003	54	104	8	9	217	68	4,674	
Syringomyelia.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	.005
Telangiectasis.....	2	16	26	1	20	4	7	1	...	6	2	2	...	...	2	12	10	103
Trichophytosis, barbae.....	...	...	6	4	7	7	1	...	...	6	33	3	1	...	12	3	10	94
Trichophytosis capitis.....	...	3	166	60	11	30	5	6	...	38	474	2	20	13	14	22	68	932	
Trichophytosis corporis.....	9	...	138	48	8	2	34	...	...	69	298	2	7	18	2	6	298	1,526
Trichorrhexis nodosa.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trichorrhexis (papulo-necrotic).....	8	...	6	6	5	2	2	3	4	...	13	1	2	...	4	2	58	.069	
Tuberculosis verrucosa.....	1	...	19	3	3	1	2	1	2	6	...	...	...	1	...	2	41	.070
Ulcus.....	16	5	112	42	4	10	5	34	15	162	...	2	2	4	16	15	461	.789	
Ulcus molle.....	64	8	123	33	8	2	2	...	5	12	...	...	...	6	5	15	283	.484
Urtidrosis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Urticaria.....	14	4	269	151	26	25	21	14	30	55	883	4	38	28	13	65	104	1,744	
Urticaria pigmentosa.....	...	...	1	1	1	2	2	...	...	8	...	...	...	...	...	2	15	.025
Vaccinia.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	.023
Varicella.....	3	12	22	44	10	1	6	10	13	158	...	5	7	...	10	23	324	.554	
Varicella.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20	.034
Verruca.....	20	...	151	121	11	27	13	28	61	35	323	11	16	18	6	36	62	939	
Verruca scorrbhelea.....	1	...	2	6	...	...	...	...	...	...	...	...	...	...	27	6	111	.188
Verruca peruviانا.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	.009
Vitiligo.....	14	...	19	30	6	4	4	5	4	38	1	4	...	...	5	20	158	.270
Xanthelasma (eyelids).....	6	...	15	3	2	3	5	11	...	15	...	...	...	...	2	9	71	.121
Xanthoma.....	1	2	...	4	2	5	1	2	1	2	...	...	...	...	1	6	37	.063
Xeroderma pigmentosum.....	...	15	...	...	...	...	...	...	...	6	...	...	...	...	...	2	24	.041
Unclassified.....	5	...	11	33	13	38	...	23	...	57	...	...	43	356	14	26	505	1,550
	1,815	130	9,414	7,365	1,306	2,697	975	1,200	1,818	2,255	19,308	442	1,044	800	1,118	2,584	4,116	58,387	99,883

ous lesions have disappeared. For the first time in our statistics we have endeavored to obtain records of the number of cases of syphilis at the three striking clinical stages. Our combined reports show 739 cases seen during the primary stage ($11\frac{1}{2}$ per cent. of all cases), 2,176 seen during the florid period ($31\frac{1}{2}$ per cent.), and 4,674 cases (8 per cent.) of the late period. Reduced to simple terms the proportion of patients in the primary, secondary and tertiary stages reported by our members is as one, chancre; three, secondary stage, and six in the late period.

The conclusion that the ten million syphilitics in America may be grouped into stages in accordance with these ratios is manifestly absurd. It is only a small part of the total number of cases without obvious lesions or with visceral lesions that come to be treated in our dermatological clinics and moreover the practice in different clinics varies enormously. I have selected from the reports submitted the syphilis returns from those clinics in which I happen to know a special effort is made to induce the patients to continue treatment until they are pronounced cured and to which also the other departments of the institution refer most of their cases of syphilis for treatment.

The clinic with the best record in regard to treatment of visceral and asymptomatic cases reports the following ratios: Primary, one; secondary, four; late, twenty-five, and the average of the best three records is 1:6:24. Grouping the cases in the primary and secondary stages and comparing them with those in the late stage, we find in the clinic with the highest record fifty cases of late syphilis to ten cases in the earlier periods, while the average of the three clinics considered gives us thirty-four cases of tertiary to ten of primary and secondary. In contrast to these records are the reports from six clinics with the lowest record in regard to tertiary cases. In the leading record of this group, "by merit raised to that bad eminence," we find ten cases in the initial stage to forty-eight with lesions of the secondary period, while only fourteen cases are recorded for the tertiary period. It is manifest that in this clinic practically the only cases of the tertiary period that are treated are those with gummous lesions of the skin, while the enormous and important class of cases temporarily asymptomatic or with only visceral lesions are neglected. The general average of the six clinics here considered shows one case in the tertiary period to two in the earlier stages. You will note the contrast with the other clinics which shows proportionately more than seven and one-half times as many cases in the late period as are shown in the reports of the second group of clinics. It is obvious that the clinics represented in this second group are not doing their duty to their patients nor to the community on which the care of many of the victims of neglected ter-

tiary syphilis will ultimately fall. I am confident that the gentlemen who conduct these clinics are not unmindful of their obligations to their patients and the public, but they have not succeeded in impressing on the authorities in charge of the institution in which they work the importance of systematic treatment of every case of syphilis whatever the nature of the lesion, systematic treatment which can only be carried out in a syphilological clinic. Let us hope that the example of the better conditions prevailing in other clinics may serve to stimulate the authorities of these delinquent institutions to a higher sense of their duty.

S. POLLITZER, M.D., *Chairman.*

Society Transactions

Clinical Sessions of the American Dermatological Association

Forty-First Annual Meeting

CITY HOSPITAL, CINCINNATI, MAY 24-25, 1917

EPITHELIOMA. Presented by DR. RAVOGLI.

The case was that of a woman from Springfield, Ohio, who had had a roentgen-ray burn for nine years. She had a goiter, was treated for it by the roentgen ray, the goiter disappeared, but a radiodermatitis developed. In this area epitheliomatous nodules had appeared, and on presentation the whole skin of the breast was affected by the malignant growth. Raw surfaces were present between the infiltrated skin and the ulcerated epitheliomatous nodules. By covering the surface with a salve of diachylon ointment $\frac{3}{4}$ i and ichthylol $\frac{3}{4}$ i the surface had somewhat improved and the suffering of the patient diminished. The speaker did not believe that a radical surgical operation would be of any use, as the epitheliomatous nodules had extended too much, and it would necessitate great mutilation and would not afford a ray of hope.

DISCUSSION

DR. POLLITZER stated that this patient was inevitably doomed to have cancer, and sooner or later she would die of cancer unless something was done; therefore, he would advocate radical measures. Some of the lesions seemed to him distinctly epitheliomatous, and he thought the only thing to do in a case of this sort was to employ the most radical measures. He would dissect off the entire cutis and cover it with a skin graft.

NEVUS LINEARIS BILATERALIS. Presented by DR. HEIDINGSFELD.

The patient was a woman, aged 28, with a dermatosis covering almost the entire body—feet, lower extremities, trunk, hands and upper extremities, and mildly present over the face. The disease resembled psoriasis and the spine was studded with scaly papules distributed over limited areas in a well defined linear form. The patient was first seen by the speaker April 11, 1911, and during the six years' interval of personal observation, there had been little change in the character of the eruption. Itching and disfigurement had been the chief symptoms. Treatment in every form had been entirely barren of results. The case conformed in many of its aspects to some of the aberrant types of ichthyosis described in the literature, particularly to that of érythrodermie congénitale ichthyosiforme. His diagnosis was nevus linearis bilateralis.

DISCUSSION

DR. SCHAMBERG stated that the history of this case was atypical; the patient had never had freedom from the eruption nor any spontaneous disappearance of the lesions. Treatment had been likewise ineffective. In spite of the fact that some of the lesions were grouped in a linear manner, he would not disregard the diagnosis of psoriasis. He had had three cases within two years with distinct linear streaks of psoriasis; in one of them the generalized psoriasis had disappeared, leaving a persistent linear patch. In the present patient the palmar surface of the hand was involved with psoriatic lesions and she had lesions on the elbows and scalp suggestive of psoriasis.

DR. HARTZELL could not quite agree with the diagnosis of psoriasis in this case on account of the appearance of the eruption. In certain cases of psoriasis

it was possible to produce by slightly beading the skin the picture described in Ziemssen's Handbook of Diseases of the Skin. There was considerable keratosis, and he was not at all convinced that this was a case of psoriasis on account of involvement of the shoulders, and bilaterally, on the back, there was much less marked infiltration.

DR. WENDE asked whether or not the eruption varied from time to time.

DR. HEIDINGSFELD stated that it remained about the same and was persistent.

DR. POLLITZER asked what parts of the body were mostly involved.

DR. HEIDINGSFELD replied that the lesions were mainly on the forearm.

DR. PUSEY said he knew that psoriasis could begin in early infancy, and that it was a very obstinate affection, but he did not know that psoriasis would persist absolutely unchangeable in its features, and that was one point in this case. Without going into an elaborate reason for his opinion, he believed this was a case of congenital diskertosis. One might call it nevus or ichthyosis hystrix bilateralis; it did not differ from congenital nevus except in extent.

DR. MACKEE said that both linear psoriasis and linear lichen planus might resemble a linear nevus, and it often required a microscopic study in order to differentiate them. It was difficult to consider this case in any other light than a keratoma, or localized congenital keratoderma, because it began a few days after birth and reached the maximum of development in six weeks, since when there had been no change. The fact that the lesion had not responded to the ordinary remedies given for psoriasis would also speak against such a diagnosis. The speaker said that such a condition could be called hyperkeratotic nevus, ichthyotic nevus, localized ichthyosis, ichthyosis hystrix, or localized congenital keratoderma. The main fact, however, was to recognize that we were dealing with a congenital anomaly of cornification.

DR. HEIDINGSFELD, in closing, stated that when the patient was first seen it was his impression that it was a linear nevus. Pityriasis rubra pilaris could be definitely ruled out by its congenital origin, its absolute stationary character, entire absence of any associated constitutional disturbances and the characteristic chilly, creepy sensations which accompanied that affection, the absence of defluvium capillorum and scaliness of the eyebrows and scalp, uninvolved of the nails and follicular keratoses invariably present over the first phalanges and extensor aspects of the body. Furthermore, the biopsy showed changes more in conformity to that of linear nevi, namely, a parakeratosis of the epidermis and structural changes in the elements of the skin, without any associated inflammatory disturbance.

LUPUS ERYTHEMATOSUS FOLLOWING XANTHOMA DIABETICORUM. Presented by DR. RAVITCH.

Mrs. W., aged 48, presented herself at the speaker's office three years ago with a group of papular and nodular elevations of yellowish color, accompanied by slight itching. The lesions were found on the upper part of the body, but more so on the face. The family history was good. The Wassermann reaction was negative. Sugar and a trace of albumin were found in the urine. Under careful dietetic treatment the nodules began to disappear. Some months later typical lesions of lupus erythematosus began to make their appearance. None of the lesions was ever influenced by any remedies except the quartz lamp. The condition suggested itself to him as one of lupus erythematosus following xanthoma diabeticorum.

XANTHOMA TUBEROSUM MULTIPLEX HYPERTROPHICUM. Presented by DR. RAVITCH.

Mrs. D., aged 38, presented herself at the speaker's office the latter part of January, 1917. The family history was good. The trouble began eight years ago on the left index finger, starting with an abscess. A year later the thumb

became involved. Finally, all of the fingers of both hands were affected. Hypertrophy and a cornified condition of the skin became troublesome and painful. The distortion was preceded by pain and sometimes by cyanosis. Ulceration was almost absent. A xanthoma nodule was found on the elbow of the right arm. While symptoms of Raynaud's disease were simulated, the constitutional symptoms and the course of the disease of the latter were totally absent. There was no apparent vasomotor nutritive disturbance. The Wassermann reaction was negative. A microscopic examination of a section showed a mass of calcified lime salts. The diagnosis suggested by Dr. Pollitzer was xanthoma tuberosum multiplex. However, until a thorough pathologic examination of the larger specimen had been finished, the diagnosis must remain in doubt.

DISCUSSION

DR. POLLITZER stated that in xanthoma tuberosum the lesions were not always as yellow as in the typical case. The amount of coloring matter in tumors of the xanthoma type varied. On the elbow of this patient there was a typical tumor of xanthoma tuberosum. There was a great deal of fibromatosis of the older lesions of xanthoma tuberosum, and the masses on the finger tips were subject to the possibility of frequent injury, which, in the condition of diminished resistance due to the pressure of the tumors, might easily result in ulceration. Pressure of the tumors interfered with the circulation and with the innervation of the part and might produce such symptoms as the doctor referred to as suggestive of Raynaud's disease.

DR. PUSEY said he was much obliged to Dr. Pollitzer for the suggestion mentioned, as it had not occurred to him. He asked Dr. Pollitzer if he had seen other cases with lesions in the same location.

DR. POLLITZER replied that he had seen xanthoma tuberosum on the nails.

DR. PUSEY said it was a most extraordinary clinical picture, and one he was glad to have seen. He would venture to discuss the treatment of the case in this connection. It was desirable to reduce these tumors, if possible. For the last few years he had been treating more satisfactorily than ever before xanthoma about the eyelids with the cautery, applying it with minute punctures. The results were prompter and better than he had seen before. The method might be tried in this case.

DR. McEWEN said that these tumors were infiltrated with calcareous deposits, and one could see where little growths could be dug out.

DR. POLLITZER, in referring to the calcareous masses, asked if microchemical tests had been made. It seemed to him not unlikely that the amorphous or crystalline matter was cholesterol—a substance occasionally found in xanthoma tumors.

LA GRIFFE INFECTION, INVOLVING THE MUCOUS MEMBRANE, RESEMBLING TUBERCULOSIS. Presented by DR. HEIDINGSFELD.

The patient was a young girl, aged 14 years, who incurred an infection of la grippe in 1915. This was complicated with pleurisy, and convalescence was not fully established until the following summer. Chronic rhinitis persisted for a year or more. In the spring of 1916, the patient's gums over the lateral upper incisors became very spongy and bled readily. The inflammation spread rapidly to adjacent mucous membranes, particularly to the mucosa surrounding the upper teeth, both without and within, and to the upper lip. The affected areas presented a raw, ulcerated appearance. The tip of the nose was also mildly inflamed, and the condition conformed in appearance to that of a follicular lupus. The case was presented for diagnosis. The speaker was inclined to the diagnosis of tuberculosis of the mucous membranes. The patient had shown material improvement with systematic injections of an autogenous prepared vaccine.

DISCUSSION

DR. SCHAMBERG said in this case he should suspect a tuberculous gingivitis. The history of a pleurisy following chronic influenza was suggestive. We were told by internists that most cases of pleurisy were tuberculous in character. The patient had an ulcerated lesion on the under surface of the lip, and a similar lesion on the tip of the nose. The fact that tubercle bacilli were not found in the tissue was not conclusive evidence that it was not a tuberculosis.

DR. POLLITZER stated that his first impression of this case was that the lesion was tuberculous, and although he made this diagnosis with caution, he did not know what else it could be. The failure of the tuberculin reaction was of course significant, but by no means conclusive. Far more valuable would be the simple experiment of removing a portion of the tissue and planting it into the belly of a guinea-pig, and he hoped Dr. Heidingsfeld would do this, and make known the result of the experiment.

DR. RAVITCH said that pyorrhea might have a great deal to do with the cutaneous manifestations. It was well known that these patients neglected themselves; they did not use a handkerchief as they should and infected themselves.

DR. MOOK said he had had several cases in which the gums were involved, and had had excellent results from applications of acid nitrate of mercury applied once a week. It produced quite a reaction and most of the patients had gotten well with that treatment.

DR. HEIDINGSFELD, in closing, stated that there was a possible anatomic basis for the lip and mucous membrane infection in this case. The irritating and infectious discharge from the nose might have passed through an anatomic canal which led from the floor of the nose to the upper lip. He was informed by anatomists that such a canal existed in the embryo, and might have remained patulous in this instance at the time the infection took place. Gingivitis could be ruled out in this case from the fact that careful roentgen-ray examination revealed no basis for that condition.*

PELLAGRA. Presented by DR. RAVOGLI.

The patient, a man from North Carolina, had been an alcoholic for a long time. When he was admitted to the City Hospital he was assigned to the speaker's service. He had an erythema on the backs of the hands and lower third of the arms. The erythema was brown red, slightly elevated, with a little desquamation. He was affected with severe diarrhea, was greatly emaciated, and had difficulty in speaking on account of hoarseness. The patient was examined by a specialist in diseases of the throat, who found there was no tumor nor any condition which would explain this hoarseness, unless it was due only to a slight inflammation. On account of the erythema of the hands, the hoarseness and persistent diarrhea, a diagnosis of pellagra was made.

DISCUSSION

DR. RAVITCH said that while this case might be one of pellagra, the clinical picture of that disease was not clear to him. The patient had erythema on the backs of the hands and on the forehead, associated with roughness. He thought the mouth ought to be examined to see whether the patient exhibited pellagrous changes of the tongue. After having seen many cases of pellagra, he was inclined to think that this patient's symptoms were due to alcoholism. His skin was too elastic to suggest genuine pellagra.

* NOTE.—Since the case was presented, the roof of the mouth had become involved and at the present time (Jan. 1, 1918) was studded with grayish white, characteristic looking miliary nodules and ulcerations that appeared to be tuberculous in character.

ALOPECIA TOTALIS UNIVERSALIS. Presented by DR. HEIDINGSFELD.

The patient, aged 21, presented herself four years ago with a history of an alopecia totalis of four years' duration. It began on the forehead and spread over the entire scalp with an associated loss of eyebrows, eyelashes, and the subsequent loss of hair from the axillae and pubes. Only the hair over the pubes had partially returned. The scalp had shown no material improvement under six or seven different methods of local treatment. The Kromayer and Alpine-sun lamps were absolutely ineffectual in this instance.

DISCUSSION

DR. CHIPMAN said there was a special problem in these cases of total alopecia of the scalp, which was a little different from alopecia areata of the scalp as we saw it ordinarily. It seemed to him there was a difference in the degree or kind of infection, if it was due to an infection. The cases he had seen had not done well under local treatment. He had one case which developed in patches, beginning at the occiput, spreading around the sides, and then involving the top until the entire scalp became bald. It was a case which he mentioned in his series of cases reported at the meeting. In it there was no apparent primary focus of infection, but there was very marked adenopathy. There were enlarged glands in the occipital region where the first loss of hair was shown. These glands were the size of an English walnut. There were also enlarged glands in the back of the neck. The patient was a boy, 14 years of age, who gave a history of persistent colds, one after the other. Whether there was enough element of infection there to make matters of etiologic moment, he did not pretend to say. He looked for infection of the sinuses. Roentgen-ray plates were made which showed nothing abnormal. The teeth were in good condition. The appendix was apparently all right, and he could not find any focus of infection except persistent, recurrent colds and adenopathy.

He had also a case which was shown at the American Medical Association meeting in San Francisco. The patient was a youngster who gave a positive Wassermann reaction, and yet antisyphilitic treatment made no impression on his alopecia.

DR. SCHALEK stated that his experience agreed with that of Dr. Chipman. He had had several cases of total alopecia in rather young people, and treatment was of no avail. He believed alopecia in limited areas would get well under most forms of treatment, but when it came to total alopecia the cases were so intractable that scarcely any treatment was of any avail.

DR. HAZEN thought it was well for us to study these cases of total alopecia very carefully. If there was any one condition which might influence the hair it was a disturbance of the glandular secretions, and particularly as much hair began to develop at the time of puberty when so many glandular changes were taking place. Undoubtedly the changes that took place in these glands might cause the loss of hair.

DR. RAVOGLI stated that at the meeting of the International Congress of Medicine, held in London, England, in the Section on Dermatology, the subject of alopecia areata was discussed and Sabouraud took an active part in the discussion, and reported as having had cases in which he could find micro-organisms. On the other hand, in cases of total alopecia he could not find any micro-organisms whatsoever and came to the conclusion that there was some diathetic condition which produced the loss of hair. He also pointed out that there were some other skin affections due largely to a lack of circulation, consequently he believed that there was something in the system which influenced the hairs so that they were loosened and were lost.

DR. McEWEN said he was struck with the persistency of the hair on the upper lip in the case shown. He inquired of Dr. Heidingsfeld if the pubic hair was

in any way abnormal. For instance, did the woman have a masculine distribution of the pubic hair?

DR. HEIDINGSFELD said he could not answer the question because the patient permitted only a local examination.

LYMPHANGIOMA TUBEROSUM MULTIPLEX. Presented by DR. HEIDINGSFELD.

This patient, a full blooded negro, aged 35, was the eighth child of seventeen children, the seven youngest of whom were all dead. Mother, father and four brothers and five sisters were all living and in the enjoyment of good health. The patient and his mother were the only members of the family who had shown any trace of the affection.

The eruption consisted of small rounded or oval lesions, pinhead to a pea or somewhat larger in size and normal in color, conforming to the rest of the skin. The lesions were firm to the touch, insensitive to pressure, embedded in and freely movable with the epidermis. The epidermis concealed from view the vast majority of the lesions, but these were brought distinctly into view if the intervening skin in which they were embedded was stretched. The involved areas showed a number of slightly depressed, pigmented cicatrices which the patient stated were the site of former lesions which underwent mild inflammatory ulceration and spontaneous involution. The affection had been present as long as the patient could remember, but the lesions had multiplied in number and had increased in size and extent. There was no itching, pain or other subjective or objective symptoms. The patient was married but had no children. The only other member of his family similarly affected was the patient's mother. The case came to the speaker's notice, Feb. 14, 1905, and had been under observation since that time, showing little or no change in the appearance and development of the affection.

DISCUSSION

DR. HAZEN said he could not consider this case as an example of lymphangioma tuberosum multiplex, possibly better known as syringocystadenoma. The histologic structure was entirely different, consisting simply of epithelial cysts which were occupied by curled hairs, while in syringocystadenoma the cysts did not contain hairs, and there were numerous strands of epithelial cells branching off from some of these cysts, which, by the way, were often considered as arising from the sweat ducts. On close examination of these growths a central sebaceous opening might be seen, and the skin was attached to this opening, and here only. He was inclined to consider the case as one of multiple sebaceous cysts which had the unusual feature of having lanugo hairs in each cyst.

DR. HELMANN disagreed with both of the previous speakers. He felt reasonably certain that this was not a case of lymphangioma tuberosum multiplex. It looked like fibromatosis. The fact that there were elevated lesions indicated nothing to him. The patient had acne as well as the other disease and the skin was raised above the tumors among the comedones. The microscopic structure of lymphangioma tuberosum multiplex was pathognomonic and could not be mistaken. It was hardly necessary to go into that subject because every one knew what the picture was. Suffice it to say, it was unconnected with the hair that one found, and the cysts lined with flattened epithelium sometimes held the entire cyst contents or detritus. It had nothing to do with the hairs or with the sweat apparatus.

From the clinical and microscopic picture presented by this case, the speaker felt perfectly certain that we were dealing with multiple fibromatosis.

DR. HEIDINGSFELD, in closing, said that the biopsy showed that the lesions were cystic, for the most part oval in outline, well embedded in and encapsulated by a dense wall of connective tissue. This wall was lined with a concentric layer of epithelium undergoing fatty degeneration. The cyst cavity was filled with epithelial debris and a large amount of lanugo hair, coiled into concentric locks.

The case conformed in its clinical aspect and distribution to those reported in the literature, under the general term of lymphangioma tuberosum multiplex, with its varying pathology. Pollitzer had described a case with a somewhat similar pathology, under the name of multiple dermoid cysts, simulating lymphangioma tuberosum multiplex.

HYPERTRICHOSIS. Presented by DR. HEIDINGSFELD.

The speaker reported two cases of extreme hypertrichosis as having been successfully treated with radium. The condition developed in each case at a very early age and the hair was of extensive and of very heavy growth. The results spoke for themselves. Wherever the radium had been applied the hair had permanently disappeared, leaving the skin smooth, white, almost normal in character. His early results were somewhat discouraging, as exemplified in one case of nevus vasculosis, also presented at this time. For the time being, he was inclined to lay aside radium. He now felt that some of the shortcomings were entirely due to imperfect and faulty technic, insofar as the reaction was out of proportion to that necessary to produce the desired result, and occasioned more subsequent pigmentation and disfigurement than necessary. The skin could be so treated by proper shielding as to overcome these technical shortcomings and produce an excellent therapeutic and cosmetic result in cases in which the hair was so thick, abundant and heavy as to discourage epilation with the needle. Radium, in his judgment, could be successfully used with good cosmetic result, and therefore, he presented these cases in order to commend its further use in this particular field of endeavor.

DISCUSSION

DR. MACKEE said that in his experience radium in the treatment of hypertrichosis was no more efficacious than was the roentgen ray and, in this condition, that both agents were dangerous. There were certain similarities and dissimilarities between the two agents that might be considered with profit. Radium had one advantage, especially in inexperienced hands, in that the dose was estimated entirely by time. In other words, so far as concerned errors of dosage, radium was more fool-proof than was the roentgen ray. However, while a radium plaque could be applied with great ease to a flat surface of restricted size, it required skill to obtain an equal dose over a convex surface.

In the case of radium, unfiltered or filtered with very thin material, there were two types of radiation that entered the skin, namely, the beta and the gamma, the alpha rays being omitted from the discussion. The gamma rays, like the roentgen rays, ranged from slight to intense penetration and were considerably more penetrating than the roentgen rays, a fact of no importance in dermatology. The beta rays were analogous to the cathode stream of the roentgen-ray tube—negatively charged electrons. The beta rays varied considerably in penetration, but they could be almost totally intercepted by 3 or 4 mm. of aluminum. Both the beta and gamma rays of radium and the roentgen rays would make hair fall out and the cause for the defluvium was the same regardless of the agent. Both agents possessed a selective action on biologically and physiologically active cells and the cells of the hair bulb were of these types. On account of the hair bulbs being deeply seated a ray that exerted the maximum influence on the hair papillae and a minimum influence on the epidermis was, of course, preferable. For this reason many operators employed a filter to remove the less penetrating rays from the roentgen ray tube or to intercept the less penetrating gamma and beta rays from radium. But even so, it was impossible to produce a permanent alopecia with either of these agents without altering the skin to some extent. Even the highly penetrating rays, Benoist 12 for instance, would affect the epidermis. After enough ray had been administered to effect a permanent destruction of the hair papillae there followed an atrophy and disappearance of the follicles and of the arrectores. The sebaceous and coil glands underwent atrophy, the papillae were likely to be

flattened out and there might be alterations in the fat, connective tissue, etc. All these changes combined were likely to produce more or less visible wrinkling, and if a roentgen-ray or radium erythema occurred telangiectasia might result.

The speaker was not willing to say that radium did not possess some advantages nor that it was less fool-proof and less dangerous. What he particularly wished to emphasize was that both of these agents acted on hypertrichosis in the same manner and while it was possible to obtain good results with either, the danger of permanent injury was very great. He wished to correct the prevailing belief that radium acted in an entirely different manner from the roentgen ray and that it was a safe treatment for hypertrichosis. Radium, filtered or unfiltered, could produce burns that required years to heal and, in fact, ulcers that would never heal. No matter how employed an erythema would result if the dose was sufficiently large and this erythema might be followed by telangiectasia. The speaker was decidedly of the opinion that, at the present stage of our knowledge and technic, neither radium nor the roentgen ray was justifiable in the treatment of hypertrichosis excepting in unusual cases.

DERMATITIS HERPETIFORMIS. Presented by DR. HEIDINGSFELD.

The patient was a girl of 8 years, observed for the first time Nov. 19, 1916, when the face, trunk and extremities were extensively involved in a grouped papulo-vesicular eruption, which was patchy and crust covered. The eruption had been present ever since the patient was 3 months of age, without intermission, and the disfigurement and discomfort had been such as to exclude the child from admission to the public schools. The case was presented to show the material improvement which had been effected in six months' time. The greatest improvement was noted after normal blood serum was administered for the first time, Dec. 19, 1916. Five injections were given up to March 12, 1917. Treatment was accompanied by dietary regimen, and lotions and ointments for local use. The skin had cleared up entirely on April 9, 1917, followed by a relapse during the last few weeks, after treatment had been entirely remitted for a period of about six weeks. At the date of final report (December, 1917) there had been no remission.

DISCUSSION

DR. CHIPMAN said that he hesitated to take such a divergent view. In the first place, the cutaneous manifestations developed, as he recalled, when the child was a month old or less. To him the essential background in the case consisted of some deficiency in the skin, call it what one would, xeroderma or a mild degree of ichthyosis; there was something fundamentally lacking in the skin which created a *locus minoris resistentiae*. This predisposed to dermatitis, eczema, or any inflammatory reaction. Superimposed on that base was definite streptococcic infection. At the right angle of the mouth there was a slight fissure, with roughness of the skin, and in the photograph the lesions of the face and forehead were distinctly impetiginous. The speaker would interpret it distinctly as a streptococcic infection on a skin the resistance of which was lowered by a congenital deficiency of some sort.

DR. HEIDINGSFELD, in closing, stated that this little girl was seen for the first time early this year. She came with a history that the eruption manifested itself in early infancy and had existed up to the time she was first examined. The cutaneous manifestations were so intense in character that the child was not admitted to classes and she could not proceed with her school work. The result in this case was largely due to normal blood serum injections obtained from other patients, and every injection was followed by improvement. The child had had no treatment for two weeks, hence there was a slight relapse since the child was last seen.*

* NOTE.—At the date of final report, there had been no further remissions.

NEVUS VASCULARIS, UNSUCCESSFULLY TREATED WITH RADIUM.

Presented by DR. HEIDINGSFELD.

Miss R. L., aged 14, presented herself with a port wine stain which had been treated with radium with partially successful results. The patient was first observed when 4 years of age. Carbon dioxide snow was unsuccessfully applied. The deep-seated character of the telangiectases made the case inappropriate for that form of treatment.

Radium was first applied Nov. 20, 1915, twenty applications having been made from that date up to the hour of presentation. Much of the telangiectasis had been successfully removed, but the cosmetic result was as yet far from satisfactory, owing to a certain amount of secondary superficial telangiectasis and mottled discoloration and pigmentation. Much of this resulting disfigurement was attributable to crude and imperfect technic employed during the early part of the radium treatment.

DISCUSSION

DR. MACKEE said that this case illustrated the fact that radium could produce the same end-result as could the roentgen ray. The patient showed scarring, telangiectasia and little adherent scales that were probably the beginning of keratoses. The speaker considered this tissue potentially dangerous.

DR. HARTZELL asked as to the roentgen-ray treatment of keratoses.

DR. MACKEE in reply stated that roentgen-ray keratoses would occasionally disappear under the influence of one or two intensive doses of roentgen ray, provided the parts so treated had not been under the influence of the roentgen ray for a number of years. For this purpose, however, radium was more efficacious than the roentgen ray; particularly was this so of the beta rays. The speaker thought it was the beta rays that were instrumental in effecting a cure in these cases, and if the cathode stream of the roentgen-ray tube could be applied to the skin, it was possible that the result would be similar to that obtained by means of the beta rays of radium.

FOLLICULIS. Presented by DR. HEIDINGSFELD.

Mrs. L. S., aged 43, presented herself for the first time on August 2, 1917, with crust-covered papules, atrophic, irregular scars and atrophic pigmentations, disseminated over the legs, thighs, arms and forearms, behind the ears and over the anterior borders of the scalp. The affected areas over the scalp and neck were in a practically healed condition. The lesions over the extremities, however, were in a state of active ulceration, infiltration and inflammatory change, and were showing active progressive and regressive changes. The condition began on the extremities ten or twelve years before the patient presented herself. The lesions had been moderately painful and the site of persistent and intolerable itching. The patient had progressed materially toward recovery with tuberculin and *Staphylococcus aureus* injections.

DISCUSSION

DR. MCEWEN stated that the cutaneous manifestations in this case might be due to chronic stasis of the bowel which began just before the skin lesions appeared. The sclerotics and skin were yellow. The stools were light colored at times. When she had a diarrhea, there was a cessation of itching for three or four weeks. Itching was present everywhere. He believed the actual lesions on the skin were the result of trauma from scratching, plus infection, and that the real trouble lay somewhere in the bile tract.

DR. SCHAMBERG stated that distinct, elevated, indurated plaques, with epidermal thickening, were characteristic of prurigo nodularis.

DR. PUSEY said he saw in this patient some inflammatory lesions which he thought were the result of scratching. If the patient had not had any itching, one might come to the conclusion it was folliculitis. Most of the lesions were

follicular, and many of them without elevation. They could not be called tumors without a great stretch of the meaning of the word tumor. He could not see how we could put this case in the well defined class of prurigo nodularis.

EPIDERMOLYSIS BULLOSA. Presented by DR. HEIDINGSFELD.

M. P., boy, aged 11 years, was first observed Oct. 3, 1916, at which time he had a well defined eruption of epidermolysis bullosa involving the knees, legs, arms, face, lips, palate, tongue, etc. An intravenous administration of 0.3 gm. of quinin was given October 4, and considerable improvement was noted on the occasion of the next visit, Dec. 12, 1916. The patient had also gained 5½ pounds in weight. Normal blood serum was administered Dec. 12, 1915, for the first time, and ten administrations were given up to March 12, 1917.

CUTANEOUS LESIONS FOLLOWING VACCINATION. Presented by DR. HEIDINGSFELD.

The speaker stated that he saw this girl before he left the alternating service and the dermatosis impressed him as a well defined eruption such as was seen in young children in whom the lesions consisted of diffuse bullae covering the trunk and extremities, with lesions on the mucous membranes, involving the nose, lips and cheeks. The child was very much prostrated at the time. There was a history of previous vaccination, but as he recalled the case, the vaccination was merely a coincidence rather than an etiologic factor. It was quite a while before the child developed an eruption. The child had been neglected a month or two before the eruption appeared. The onset was sudden. The child received one or two doses of quinin intravenously. Following this there was material improvement noticed and the child went on to convalescence, but the convalescence was never complete. The lesions disappeared rapidly, then relapsed, so that treatment was only a partial success.

DISCUSSION

DR. MOOK believed this was undoubtedly a case of bullous dermatitis following vaccination. The scar formation was unusual, although he had had one case in a man in which there was considerable scar formation.

As to the period of incubation, Simpson reported three days, and some of the cases reported had gone as long as three or four months. Dr. Schamberg, in discussing a paper in New York which the speaker read two years ago on this disease, suggested the use of arsenic. It had a good effect, although it was only temporary. The speaker had eight or nine cases about three years ago and none since, until in the last week he had had two cases, in one of which a vaccine of Parke, Davis & Co. had been used, and in the other Mulford's vaccine. In one case the period of incubation was a week and in the other two weeks.

DR. WALLHAUSER said he understood that the eruption in this case occurred three weeks after vaccination. He was impressed with the case as probably being one of dermatitis herpetiformis on account of the intense pruritus and the vesiculation which was present.

DR. RAVOGLI said he took charge of this child under a diagnosis of pemphigus, and continued treatment by injecting quinin under the skin, but the child was getting worse, and treatment was stopped. Then he resorted to the use of cacodylate of sodium every other day, injecting one-third of a grain, and the improvement was marked. The lesions began to disappear, but later the bullae recurred, and the use of cacodylate of sodium was stopped. Later an examination was made by Dr. Wherry who found in the bullae streptococci, from which a vaccine was prepared. He had given injections of this vaccine, beginning with one-half drop and going on to one drop and increasing to one drop and a half. Under this treatment the improvement was marked, but the bullae had again recurred. This was undoubtedly a case of bullous eruption following vaccination

and very likely from a streptococcus infection. The urine was examined and found normally acid, with no albumin or casts. The diagnosis of pemphigus was not tenable.

PERSISTENT ERYTHEMA. Presented by DR. HEIDINGSFELD.

The patient was a little girl, 4 years of age, who had an eruption all over the body. This eruption appeared six months ago; it began as ordinary hives, and later on the lesions became papular and bullous in character; the lesions extended all over the body and were accompanied by much itching.

The case was presented for diagnosis and treatment.

DISCUSSION

DR. CHIPMAN emphasized the presence of diseased tonsils in this case, and whether one was justified in considering focal infection as a possible cause or not, there was certainly some unknown quantity to be determined. In San Francisco they saw more of these cases than were found elsewhere, and he attributed this fact to the prevalence of fleas. The flea, like many insects, showed marked selection preferences for certain individuals. In San Francisco the stranger was usually attacked. Many infants reacted with urticarial papules. A curious fact was that of two or more children in the same family, often only one reacted. Was this because of the flea's preference for one individual, or was it because of special hypersensitiveness on the part of the subject who reacted? If due to the latter, it would seem that the possibility of focal infection as the ultimate cause was at least worthy of consideration.

DR. MOOK said the case impressed him as one of erythema figuratum perstans, but early diagnosis in a case like this was difficult, and it would take some time to make a correct diagnosis. The lesions over the shoulder were diffuse patches of dermatitis due to scratching, but there were configurations on the forearm that correspond exactly to the lesions as described in erythema figuratum perstans. He recalled the case of a man who had erythema on his cheek bones which corresponded closely clinically to the lesions observed in this child. These face cases frequently developed into lupus erythematosus. That was one of the reasons it was difficult to associate it with erythema figuratum perstans. The case must be observed for a long time before it could be classified.

SERIES OF CASES OF ERYTHEMA INDURATUM (BAZIN). Presented by DR. HEIDINGSFELD.

1. Mrs. J. B., aged 29, presented herself for the first time, May 18, 1915, with a history that the right leg in particular and the left leg slightly had been the seat of painful, deep-seated, indolent infiltrations, which slowly enlarged until they gradually reached the surface and covered an area the size of a silver half dollar and larger, underwent sluggish ulceration, which had persisted without being influenced by local or general treatment for two years prior to her first appearance. Six months' treatment cleared up the condition entirely, and the patient enjoyed a respite of good health for almost a year, during which time a normal child was born. Serologic examinations were made on the date of her first visit, May 18, 1915, and were absolutely negative. The patient suffered a severe relapse in August, 1916, which had gradually responded to treatment and gave evidence of again proceeding to a satisfactory clinical recovery at the present date—May, 1917.

2. L. M., aged 14, was first observed March 9, 1917, when there were several indurated nodules over the lower extremities. These lesions were deep-seated, infiltrated and painful in character, and of several years' duration. The serologic examination from both a Wassermann and Hecht-Gradwohl standpoint, was absolutely negative. Convalescence was established after eight visits.

3. Mrs. J. E. P., aged 44, married twenty-one years, was first observed Jan. 17, 1917. The lower limbs were studded with deep-seated, rounded, painful

indurations, many superficially ulcerated. Walking and standing were very painful, so much so that the patient had been confined to her home for many years. She was brought to the office in an automobile. Serologic examination was absolutely negative from both Wassermann and Hecht-Gradwohl standpoints. Lesions were also present on the thighs, buttocks, arms and breasts. The condition was of eight years' duration.

Tuberculin was first injected Jan. 17, 1917. Recovery was complete, except for pigmentation and discoloration, April 16, 1917, after eight injections of tuberculin.

4. Mrs. J. K., aged 34, had been married eight years. The affection began on the lower limbs two years ago in the form of multiple, deep-seated, painful infiltrations, which slowly reached the surface, became secondarily inflamed, ulcerated and disappeared with cicatricial pigmentation. Treatment was instituted March 16, 1917. Convalescence was established after eight visits. An enlarged cervical gland on the right side of the neck, which was originally larger than a good sized pigeon egg, had also shown material improvement with the treatment.

EPITHELIOMA OF THE HARD PALATE SUCCESSFULLY TREATED WITH RADIUM. Presented by DR. HEIDINGSFELD.

This patient, M. D. H., aged 58, was presented as a case of epithelioma of the palate which had been successfully treated with radium.

The patient presented himself for the first time, March 10, 1917, with an ulceration the size of a 5-cent piece, situated behind the last molar, which had a characteristic, thickening, everted border and a sloughing, necrotic base. The personal history and serologic examination were absolutely negative. The patient stated that the lesion began late in 1916, and when first observed was scarcely larger than a split pea. It had been the site of a moderate amount of pain and discomfort.

Radium was applied on March 10, 28, and May 1. On May 1, the infiltration and ulceration were gone and the mucous membrane of the affected area was slightly roughened, scaly and grayish.

EPITHELIOMA SUCCESSFULLY TREATED WITH RADIUM. Presented by DR. HEIDINGSFELD.

Mrs. D. M., aged 42, was presented as a case of epithelioma unsuccessfully treated with roentgen rays and successfully relieved with radium. The epithelioma, which was of ten years' duration, was situated below the left eye on the cheek near the nose, and was treated four or five years ago with the roentgen ray. After remaining healed for several years the condition relapsed. Superficial telangiectases and atrophic thinning of the skin, with some slight keratosis and pigmentation were evidences of previous energetic roentgen-ray treatment. Further roentgen-ray treatment was refused and the patient presented herself to the speaker, Dec. 29, 1916. Radium was applied, Jan. 19, 1917, and a single application effected the present result.

MORPHEA-LIKE EPITHELIOMA TREATED WITH RADIUM. Presented by DR. HEIDINGSFELD.

F. E., aged 46, was first seen April 7, 1917. He presented a sharply circumscribed, diffusely indurated boardlike plaque, the size of a silver half dollar, near the center of the right cheek. Roentgen-ray treatment was administered from July 30 to Nov. 12, 1911, without apparent benefit. The patient was not observed from May 5, 1912, to May 2, 1915, when the morphea-like character was lost and the well defined malignant character definitely established. Radium was applied for the first time on May 29, and continued with material improvement until Dec. 5, 1915, when a satisfactory clinical result was apparently attained. One small nodule near the center persisted, and although held in leash by intermittent applications of radium, at present showed evidence of serious involvement.

LUPUS VULGARIS. Presented by DR. HEIDINGSFELD.

1. Mrs. A. G., aged 37, presented herself for the first time, Nov. 16, 1914, with extensive lupus vulgaris, involving the tip of the nose, alae, septum and adjacent lip, and the anterior extremity of the nose almost to its middle third. The condition began when the patient was 16 years of age. Trichloracetic acid was applied at intervals of from two to four weeks, twenty-two times, from Nov. 16, 1914, to Dec. 7, 1915. Recovery was established in about ten months' time.

2. This patient, Mr. A. E. H., aged 62, presented a case of rather widely disseminated lupus vulgaris of the face, and was shown particularly for the demonstration of the result of radium treatment. The duration of the lesion was fifteen years, beginning at the orifice of the nose, spreading over that organ as far as the middle third of each cheek, down as far as the angle of the jaw on the right side and almost to the malar eminence on the left. When first seen, April 16, 1914, the disease was spreading rapidly and showed evidence of active inflammation in the form of numerous deep-seated nodules and superficial crust-covered ulcerations. The progressive character of the disease was evidenced by the mutilating destruction of the alae of the nose.

The patient showed some material improvement under topical applications of trichloracetic acid and the Kromayer lamp, from April 16, 1914, until March 23, 1915. The results, however, were far from satisfactory and rather discouraging in character. On Nov. 11, 1915, radium was first applied, and was reapplied on May 25, June 29, August 29, and Oct. 18, 1916, and April 4, 1917. Radium had effected a wonderful degree of improvement and had answered far better than any other application made in her case.

3. C. L., aged 49, presented a case of lupus vulgaris of the left cheek, successfully treated with radium. The condition was present from childhood and had persisted in spite of all forms of local treatment. Radium was first applied, Feb. 27, 1916, and six applications had been made up to the time of presentation. A cure had been practically effected.

4. Mrs. C. L., aged 49, presented herself with a lupus vulgaris of the face, beginning at the base of the nose twenty-four years ago, and which had extended over the entire nose, both cheeks and upper lip, and had transgressed into the mucous membrane of the mouth and inside of the nose. Both alae of the nose had been destroyed, and the orifices of the nares were markedly contracted.

Radium treatment was instituted, May 1, two plaques being applied for three hours each over the lip on the left side and lower border of the left cheek. Another application of radium was made for three hours each on May 8 and 23.

At the date of final report (December, 1917), the patient had progressed almost to complete recovery with systematic radium treatment.

5. H. G., aged 19, was first observed Feb. 16, 1916. She had a patch of lupus vulgaris on the center of the right cheek, originally covering an area of about the size of a silver dollar. The same had been present, according to the patient's recollection, for at least five years, possibly ten, beginning in the form of one or two isolated spots, the size of a pencil point. Radium was first applied April 1, 1916, and again June 26, 1916; the lesion was presented as a clinical cure and for its cosmetic results.

RHINOPHYMA SUCCESSFULLY TREATED WITH RADIUM. Presented by DR. HEIDINGSFELD.

This man, G. P., aged 56, presented himself with a rhinophyma of about five years' duration, following an attack of small boils and pimples which were opened by the patient. There was no previous treatment. The growth was most rapid immediately preceding radium treatment, and the lesion attained the size of a German walnut, perched prominently on the dorsal aspect of the nose. The first application of radium was made, Feb. 26, 1916, and the present result was obtained after eighteen applications at from two to four week intervals.

ATROPHIA MACULOSA CUTIS. Presented by DR. HEIDINGSFELD.

Miss M. H., nurse, aged 35, presented herself May 18, 1917. She had noticed a patch at the base of the neck, to the left of the median line, about two or three months ago, scarcely larger than a silver 10-cent piece, which she attributed to irritation from a close fitting standing collar of her uniform. No symptoms were in evidence except a slight sense of itching. The patch slowly enlarged until at the time of presentation it covered an irregular area, 2 or more inches in length, and about three-quarters inch wide. It had very scaly, sharply defined borders, and was yellowish red.

ATROPHIA MACULOSA CUTIS. Presented by DR. HEIDINGSFELD.

Mrs. M. K. presented lesions of atrophica maculosa cutis, or "white spot disease," with a rather extensive distribution over the shoulders and median line of the back as far as the lumbar vertebrae and a large patch covering the right groin. The duration of the disease was only one year. The patches were characteristically white, scaly and studded with comedolike bodies and some showed cigaret-paper-like atrophy. Two vitiligo-like areas were situated immediately below each eye.

The chief interest in the case centered in its characteristic appearance, rapid spread, wide distribution, and entire absence of the diffused, hide-bound induration characteristic of morphea or scleroderma, with which the affection was at times confused. Superficial telangiectasis was in evidence. This condition sometimes manifested itself suddenly over night, and in somewhat hemorrhagic form.

The patches were treated with radium for the first time, April 6, 1917, in order to determine the therapeutic effect of the remedy on this condition.

PRURIGO NODULARIS. Presented by DR. HEIDINGSFELD.

This patient, Mrs. A. G., aged 50, presented herself with a history of severe itching seven years previous to the time of her first visit, which was followed, after an interval of several years, by the lesions which were present over the lower legs, thighs and forearms. The lesions were discrete, disseminated, yellowish-brown, pea to cherry-sized papules, warty in character, surmounted by superficial scales, some of them showing a tendency towards vesiculation. They disappeared with slightly pigmented depressions, simulating those of lichen planus hypertrophicus. After they had completely disappeared, the skin was left slightly cicatrized.

CASE FOR DIAGNOSIS, RESEMBLING XERODERMA PIGMENTOSUM. Presented by DR. HEIDINGSFELD.

F. A., aged 6 years, was presented as a case for diagnosis. The patient was first seen, Dec. 27, 1912, when a tentative diagnosis of xeroderma pigmentosum was made. His condition at that time was exemplified by the accompanying photograph. The face and forearms were studded with innumerable circumscribed, slightly elevated yellowish-brown pigmentations. The case was first seen by Dr. Tucker of Toledo, who made a tentative diagnosis of xanthoma and treated it as such for a year.

The lesions scarcely showed enough infiltration or color value for a well defined case of xanthoma. The condition began on the cheeks and temple and spread to the chin and neck, hands and forearms. When first observed by the speaker, the body and extremities were entirely spared. Local and general measures for a period of thirty days showed no material change. The patient was lost sight of for a period of almost four years and was last observed April 14, 1917, at which time the lesions on the face and hands had markedly faded and, for the most part, disappeared, but the body had become extensively covered with circumscribed pigmentations of the same character and appearance as the fading lesions present over the face and forearms.

It was evidently not a case of xeroderma pigmentosum for the reason that it was regressive rather than progressive, and it had become disseminated over the entire body, instead of being localized to the hands and face. The cause was entirely obscure, and the condition was not affected by season or any localizing or general influences.

URTICARIA WITH PIGMENTATION. Presented by DR. HEIDINGSFELD.

Mr. W. O. C., aged 52, married twenty-two years, presented himself for the first time, Jan. 30, 1917.

Two years prior to marriage, he patient stated that he had a genital manifestation which was diagnosed as syphilitic, but which he clinically described as chancroidal. He at that time had a double suppurating bubo, the right side requiring free incision. He was treated for several years intermittently with protiodid of mercury. Five years ago he developed a hemorrhoidal condition which was complicated by stricture of the rectum, according to the physician's statement, for which the patient was operated on by a Chattanooga physician. The operation almost caused the patient's death and had left him with partial incontinence.

When the patient presented himself for the first time, Jan. 30, 1917, the trunk and extremities were the seat of a disseminated papular, somewhat nodular, eruption which itched intensely and disappeared with more or less pigmentation. The lesions, for the most part, were the size of a finger nail. Under soothing lotions, normal blood serum injections and dietary restrictions, the patient proceeded to a clinical recovery in sixty days. The patient was last observed April 11, 1917. Pigmentation had persisted in practically unaltered form.

URTICARIA PIGMENTOSA. Presented by DR. HEIDINGSFELD.

This patient, Miss A. F., aged 26, stenographer, presented herself for the first time, Sept. 30, 1916, with a condition which had remained practically unchanged up to the time of presentation.

The condition began some eight years ago in the form of a few isolated, discrete papules on the forearm, which had persisted and had slowly multiplied until they covered the forearms extensively with a few scattered lesions situated on the backs of the hands and the face and neck. The case was presented in order to demonstrate the value of fulguration in this form of affection. Fulguration was first given April 1, 1917, and repeated April 30, 1917, with distinct evidence of material improvement.

At the present date of report (December, 1917), treatment with fulguration had proven unsuccessful. The early improvement was more apparent than real and only of transient character.

ACNE VARIOLIFORMIS. Presented by DR. HEIDINGSFELD.

C. N. S., had an acne varioliformis which began twenty-five years ago, when the patient was 17 years of age, and had persisted without intermission until the time of presentation. It began at the anterior border of the scalp, spread down over the face and backward over the scalp, with a few scattered lesions over the chest. The disease had practically run its course and the patient was only troubled with a few intermittent lesions. Ten per cent. white precipitate ointment had been the most effective remedy in his case.

PSORIASIS AND KERATOSIS ARSENICALIS. Presented by DR. HEIDINGSFELD.

Miss B. S., aged 40, presented herself for the first time, April 29, 1915, with a well defined case of psoriasis of about fifteen years' duration, with generalized pigmentation and keratosis of the hands and feet, following prolonged arsenical medication, consisting chiefly of Fowler's solution taken internally over a period of many years. The patient had also received four deep muscular injections of

salvarsan and three intravenous injections of the same remedy during the year prior to her first visit, at the hands of physicians who erroneously diagnosed the case as syphilis.

There had been marked onychitis and secondary structural changes in the nails with repeated loss of the same from the arsenical medication. The keratosis of the palms of the hands and soles of the feet had been materially benefited by radium applications. The pigmentation over the body had spontaneously improved.

LICHEN PLANUS HYPERTROPHICUS. Presented by Dr. HEIDINGSFELD.

Mr. A. G., aged 25, presented himself, Jan. 30, 1915, with an infection of syphilis, with characteristic secondaries and considerable pigmentation on the lower extremities. This eruption disappeared after the administration of neo-salvarsan and was followed in February, 1915, by an area on the right knee, on the inner side of the patella, which was red and persisted for quite a period of time. New lesions appeared on the anterior tibial surface of the right leg and extended down the leg. The first area faded gradually with purplish discoloration, followed by an atrophic scar. The lesions on the leg were irregular in outline, purplish-red, with slight scaliness, and became pigmented and faded, leaving an atrophic scar. No infiltration or hardness of the skin was noticeable. A small area about the size of a half dollar appeared about the same time on the anterior tibial surface of the left leg, which had faded to a slightly depressed atrophic scar, with purplish discoloration in the center. There had been considerable itching.

CUTANEOUS HORN. Presented by Dr. HEIDINGSFELD.

This patient, J. E., man, aged 61, had a lesion on the left hand at the middle third of the second metatarsal, about the size of a half dollar, which began three years ago, following a slight trauma, caused by striking the back of the hand on a board. This left a slight abrasion, which persisted and took on its present character. The patient had been able to bring the condition under fair control by frequent paring.

LICHEN PLANUS SCLEROSUS. Presented by Dr. HEIDINGSFELD.

This patient, E. F., man, aged 28, married six years, presented himself with a lichen planus sclerosus of four or five years' duration. The condition began on the lower legs, and almost entirely disappeared for a period of six months or a year. Hypodermic injection of atoxyl had been barren of results.

At the date of writing, December, 1917, the patient had proceeded to complete clinical recovery under treatment with mercurial injections.

CHICAGO DERMATOLOGICAL SOCIETY

Regular Meeting, Oct. 16, 1917

WILLIAM ALLEN PUSEY, M.D., *President*

RECURRENT PITYRIASIS ROSEA. Presented by Dr. E. P. ZEISLER.

The speaker presented himself as a case of recurrent pityriasis rosea. He had had a previous attack in 1911 which lasted for about ten weeks. The present attack began four weeks ago with considerable itching, slight fever, and a papular eruption. The primary patch was on the back; there were lesions on the dorsum of the feet and on the backs of the hands which locations were rather unusual. The eruption on the body, the arms and in the groins was typical of pityriasis rosea in the declining stage.

CASE FOR DIAGNOSIS. Presented by DR. HARRIS.

The patient was a man, aged 44, with an eruption of small purpuric macules of seven days' duration. There was marked involvement of the left side of the body in contrast with the right, the left side being more affected than the right. The fact that the man slept on the left side might account for the distribution. The eruption had faded considerably in two days. There was no etiology excepting perhaps overindulgence in corned beef.

DISCUSSION

DR. BAER believed the eruption was due to intestinal absorption.

DR. FOERSTER was struck by the resemblance to a copaiba eruption, and wondered if the corned beef which the man had eaten had been treated with benzoic acid. He thought it had been stated that benzoic acid might produce a purpura-like eruption, and that might be the condition in this patient.

DR. HARRIS said the eruption was an ordinary purpura which was much more abundant on the left side. He believed there must be some explanation for the fact that the left side of the neck and of the entire body was so much more affected than the right and thought it might be due to the fact that the patient slept on the left side. The man had been working over time and had eaten a good deal of corned beef in a Greek restaurant, which was the only etiologic factor which could be ascertained.

CASE FOR DIAGNOSIS. Presented by DR. HARRIS.

The patient was a woman, housewife by occupation, aged 48, who had entered the hospital with a diagnosis of erysipelas. Six weeks previously she had had a cold and cough accompanied by itching all over the body. A small elevated spot appeared on the leg which, the patient stated, became a blister and the leg swelled. Similar lesions soon appeared at the outer canthus of the eye which gradually spread but were not painful. Following needle puncture for blood counts, lesions appeared on the ears spreading from the puncture. Within the last two weeks a lesion of the right cheek appeared, which gradually enlarged. There was slight rise of temperature. The general history was negative except for chronic constipation.

Blood Count: 4,884,000 red blood corpuscles; 51,000 white corpuscles; 5 per cent. mononuclears; 40 per cent. neutrophils; 27 per cent. eosinophils, and 28 per cent. myelocytes. This count is probably incorrect as another specimen showed no myelocytes.

The lesions were large flat plaques, distinctly elevated, brownish red, somewhat edematous and showing a tendency to clear in the center. One patch occupied most of the left side of the face from above the eye to near the corner of the mouth. The lobes of both ears were affected and there was a crescentic patch larger than a dollar on the right cheek.

DISCUSSION

DR. STILLIANS was impressed by the flat lesions on the body made up of small nodules, in many instances arranged in ring formation. He thought these grouped lesions would be against the diagnosis of urticaria and that the case was a possible leukemia cutis.

DR. FISCHKIN thought the lesions of the eyebrows and face could be regarded as leukemia, but was doubtful about the flat lesions on the skin elsewhere.

DR. HARRIS did not think it was leukemia, first, because cutaneous lesions were so uncommon in myeloid leukemia; second, the lesions on the body were like those of urticaria; he believed it was a case of persistent urticaria with pigmentation. At the meeting in New York there were shown three cases of persistent urticaria much like this due to taking phenolphthalein. At one of the meetings

last year he had shown a similar case which cleared up very rapidly after being placed on a nitrogen-free diet.

DR. PUSEY thought the lesions on the body might be mistaken for an urticaria pigmentosa, but they lost that appearance on the face. The lesions about the face showed an exfoliation of the skin from an acute process and the patient might have had an erysipelas but underneath that she had a leukemia. Urticaria would not produce a sharply defined, circumscribed area; these were as sharply circumscribed as a lupus erythematosus. He thought they were leukemic infiltrations.

TUBERCULID. Presented by DR. HARRIS.

The patient was a man, aged 57, a laborer by occupation. The trouble first appeared thirty-six years ago as a lump in the axilla which was lanced at the time and gave him no trouble but persisted as a hard lump. One year ago this lump began to swell and he soon developed other enlarged glands. In May, 1917, after shaving, one small blister appeared on the face; many more soon developed, rapidly spread and became crusted. The lesions were slightly pruritic and many of them contained pus. The dorsal surface of the hands, forearms, ankles and legs became involved. The condition cleared up under treatment with bland ointment and the patient left the hospital in fifteen days with the diagnosis of Hodgkins' disease. He returned in two months with recurrence of the skin lesions and larger glands. Since then lesions appeared in a zosterlike distribution on the left side of the abdomen and back. They first appeared as hard, reddish papules with a tendency to spread peripherally and break down in the center.

DISCUSSION

DR. FOERSTER had never seen any lesions of this sort in a case of Hodgkins' disease. The zoster-like arrangement of the lesions on the left side of the abdomen and back would indicate some peripherally expressed central irritation.

DR. LIEBERTHAL believed the skin manifestations might be a zoster.

DR. McEWEN was impressed with the similarity of appearance of many of the lesions to a tuberculid and thought that possibly the man might have had a bona fide zoster a month ago which in its evolution had been changed in type by reason of his pseudoleukemia, with the result that he now showed a peculiar zoster-form eruption suggestive of a tuberculous process in the skin.

DR. STILLIANS stated that he saw the patient several months ago when he had an eruption very much like a zoster, but not grouped like a zoster, and there were lesions on the feet at the same time. When seen again some time afterward the lesions had all cleared up.

DR. PUSEY thought the man had a double lesion. He had a cachectic folliculitis all over the body and the localized lesions were due to zoster in an cachectic patient. He would account for the other lesions in the groin and elsewhere by the fact that he had had a generalized zoster.

DR. HARRIS believed that the patient had a Sternberg type of tuberculosis and that the lesions were tuberculosis of the skin. He considered it similar to a case shown by Dr. Pardee twice, once when the patient's skin was broken out with lesions similar to these and afterward when they had all cleared up. A biopsy in that case showed tuberculosis. He would explain the zoniform distribution of the eruption by the fact that possibly the man had had a neuritis located in that region in conjunction with the tuberculosis, or as the result of the arsenical treatment or from some other cause, and that the skin in that region thus became an area of lowered resistance in which the shower of organisms were able to produce changes. He considered the case one of generalized tuberculous lymphadenitis as described by Sternberg with multiple lesions of cutaneous tuberculosis.

TWO CASES OF PELLAGRA IN ONE FAMILY. Presented by DR. BAER.

The patient was a male child, aged 5 years. Early in the summer of 1915 the eruption appeared about the nose and adjacent cheeks, and disappeared when winter came. In the summer of 1916 the eruption reappeared about the cheeks, nose and on the dorsum of the hands; it disappeared when the cold weather came on. Early in the summer of 1917, the eruption appeared on the face, around the neck and on the dorsum of the hands. The child developed nervous and intestinal symptoms. The triad of typical symptoms left no doubt of the diagnosis of pellagra.

The interesting feature of this case was that a sister of this patient died of pellagra eight years ago—three years before this child was born. The home surroundings, food, etc., were excellent.

URTICARIA PIGMENTOSA. Presented by DR. MACKEY.

The patient was a young lady, aged 21, who presented a skin trouble which she had had since infancy. The disorder consisted of diffuse, small pigmented lesions extending over the trunk and upper portion of the extremities and a markedly exaggerated cutaneous reflex.

PERSISTENT CHANCER. Presented by DR. HARRIS.

The patient was a man, aged 49, a cook by occupation, who entered Cook County Hospital, June 26, 1917. Three weeks previously he had kissed a woman. He had a cold sore at the time. Twelve days later a large, hard sore developed on the left side of the lower lip which rapidly increased in size; at the time he entered the hospital it was the size of a quarter. The Wassermann reaction was + + + + and spirochetes were found in the lesion. He had received seven injections of neodiarsenol and had had mercuric inunctions since July 1. The sore steadily increased in size until there was a mushroom shaped ulcerated growth occupying about three quarters of the lip. It was everted and had a depressed center. It was very hard and painless. When first seen the regional adenopathy was marked but had largely disappeared.

DISCUSSION

DR. LIEBERTHAL thought it would be a good plan to have the growth trimmed down by surgical measures and believed that possibly the treatment would then have more effect. He stated that the growth might be an epithelioma in addition to the infection.

DR. BAER thought it might be a combination of syphilis and epithelioma.

DR. ZEISLER thought the lesion was unusually large for a chancre. Furthermore, the absence of any response to antisiphilic treatment certainly spoke against a chancre and for a rapidly developing epithelioma or possibly a sarcoma. He thought the spirochetes which were found might easily have come from the excretions from the mouth rather than from the lesion itself.

DR. McEWEN believed there was no doubt about the lesion being syphilitic but the evolution of it had suggested to him that possibly the man had had a precancerous condition of the lip at the time of the syphilitic infection and that under the stimulation of the infection the condition had now taken on the characteristics of epithelioma.

DR. FISCHKIN thought the condition was surely not a chancre or it would have healed under the vigorous treatment, and he did not believe it was a carcinoma because if it was it would have shown more breaking down than was present.

DR. HARRIS did not believe it was an epithelioma because the whole lesion was made up of connective tissue, no epithelium could be seen except at the border. It was too hard for sarcoma. The question was whether it was a chancre that had refused to heal because of the marked infiltration or whether the growth was the result of secondary infection of the original chancre with some of the

organisms of the mouth of low virulence. The patient's teeth were in a most unhygienic condition. The other evidence of syphilis had disappeared after treatment. He had suggested roentgen-ray treatments and if that accomplished nothing he thought the growth should be removed. The man had received typhoid vaccine at the County Hospital and the growth had shown no retrogression.

DERMATITIS REPENS. Presented by DR. MITCHELL FOR DR. ORMSBY.

The patient was a man, aged 26, who was first seen Aug. 27, 1917. He was a painter by occupation and presented an eruption which had been present for six years and which followed the use of varnish remover. He had had a urethritis and a positive Wassermann reaction. He had been treated with salvarsan and the Dakin-Carrel solution and the condition was somewhat improved.

DISCUSSION

DR. FISCHKIN believed the condition of the lips might be due to a syphilitic sclerosis and thought the condition of the hands was due to neglect. He noted the fact that the scaling was of a superficial character due to the inflammatory changes.

DR. SHAFFNER had considered the possibility of a so-called parasitic dermatitis.

DR. HARRIS believed the condition of the lip was due to syphilis and that of the hands was a parasitic affair and on top of that was a dermatitis from some cause or other. The finger nails made one think it might be a parasitic affair.

DR. McEWEN thought the element of neglect probably entered the problem. It had been stated that the varnish remover contained arsenic; he did not think that arsenic entered into the composition of that material. He asked what the reporter considered the prognosis to be.

DR. PUSEY believed the hands represented one of the chronic cases of dermatitis perstans. There were two types, one a chronic dermatitis of the hands with scaling and sharply defined borders, which extend all over the palms and at times caused a little atrophy and contraction. Some of these were due to ringworm and some to other infections and they were very persistent and difficult to cure. He had seen cases which had extended over years and he considered the prognosis very bad in such cases. He thought an eczematoid dermatitis of the hands described it very well.

DR. MITCHELL stated that they had seen the man for the first time the latter part of August. He had been treated in Denver by good men almost constantly for six years and finally became unable to work any longer. Someone told him he ought to see Dr. Ormsby and he "bummed" his way east for that purpose. The hands had never been any better than when he was first seen and the constant picture was that of a well defined plaque undermined with numerous little pustules. He had made cultures repeatedly and they were not at all constant—sometimes they were negative. He had also made a careful search for fungi with negative results. The fact that the blood gave a positive Wassermann reaction led to salvarsan therapy because of the fact that in three cases of dermatitis reported last year, one healed as the result of antisyphilitic treatment, but it did no good in this case. He was given the Whitfield ointment in the hope that it might be a fungus infection and that it might yield. That removed the scales and made him feel more comfortable. Radiotherapy had been of little value. He was then put on the Dakin-Carrel solution which had resulted in the present condition. He was much better but they did not anticipate a cure.

FAVUS WITHOUT LOCALIZED LESIONS. Presented by DR. STILLIANS.

The patient was a boy, aged 14, of German descent and somewhat stunted growth, who was sent to the Cook County Hospital from an orphans' home. At the time of admission he had escaped from custody for several days and his

whole scalp was heavily crusted with a dry, brittle mass, yellowish white, which showed in potassium hydrate as a mass of branching mycelium. On cleansing the scalp no definite lesions appeared, only a general scaliness which if neglected again formed a heavy crust. On presentation only the marked scaliness of the scalp was seen; the hairs were not loose and there were no favus cups. The diagnosis rested on the mycelium seen in the crusts, and on the fact that cultures on sugar mediums were overgrown by other fungi, as was characteristic for favus. Cultures on gelatin or ordinary agar had not yet been made.

XANTHOMA PLANUM AND TUBEROSUM. Presented by DR. STILLIANS.

The patient was a Roumanian Jewess, aged 42, who had had yellow plaques on the eyelids for twelve years or more and who had been treated for "Schnurleber" for several years. Within the last two years the nodules on the nose and external canthus had appeared and had gradually increased in size, without pain or other subjective disturbance.

She presented a very marked case of xanthoma planum completely encircling the eyes. On either side of the bridge of the nose was a hemispherical nodule about 1 cm. in diameter and 0.5 cm. in height, which was hard, movable with the skin and only slightly tender, over which the skin was of normal color and texture. At the left external canthus was an oval nodule somewhat smaller, hard and movable also, but the skin over it was dark red and showed dilated capillaries. These nodules varied in size at different times. The patient was nervous but otherwise felt well. The blood count and urine were normal; the Wassermann reaction was negative.

DISCUSSION

DR. FOERSTER said she had some fibromas, one on the lid and one on the forehead. He thought the lesion on the side of the nose might be a steatoma.

DR. PUSEY considered it a case of xanthoma.

DR. STILLIANS had considered the case a possible combination of xanthoma palpebrarum and xanthoma tuberosum. He had been using radium treatment but it had not had much effect. He believed the combination did not occur very often.

CASE FOR DIAGNOSIS. Presented by DR. WAUGH.

The patient was a well nourished young man, aged 20, whose disorder had been present for four years. The trouble first appeared on the face, ears, back and gluteal regions; later it involved the extremities, especially the dorsal surfaces of both hands. The lesions appeared as deep-seated, firm, reddish papules or nodules, which were frequently quite tender; later they became necrotic with a depressed center, assuming at times a faint, bluish-red color, and leaving scars on healing.

DISCUSSION

DR. HARRIS believed it was a tuberculid.

DR. FISCHKIN considered it a folliculid.

DR. WAUGH stated that tuberculin had been given and the lesions had become much worse but very marked improvement followed the roentgen rays administered in divided doses.

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meeting, May 11, 1917

FRED WISE, M.D., *Chairman*

LEPROSY. Presented by DR. MACKEE.

G. P., man, aged 26, born in Greece, came from Dr. Fordyce's clinic. He had been in this country eight or nine years. The duration of the eruption was less than a year. He showed on the right side of the face an erythematous lesion

very slightly infiltrated, and on the left forearm there were several erythematous plaques, all of which were anesthetic. The ulnar nerves could be palpated, and the exhibitor believed the case to be one of leprosy of the annular maculo-anesthetic type.

DISCUSSION

DR. GILMOUR asked the members if they knew of any authentic cases of leprosy developing in New York State.

DR. OCHS said that Dr. Parounagian had had a case which never was out of New England until the patient came to New York.

ELEPHANTIASIS. Presented by DR. MACKEE.

The patient, D. J. S., man, aged 46, was seen for the first time at Dr. Fordyce's clinic that afternoon. The duration of the condition was seventeen years. The patient had never been in the tropics or even in semitropical countries. The patient reported that his Wassermann test was negative and that his blood had been tested both in the daytime and at night for filaria without success. The urine was also negative. There were never any chills and no recurrent attacks of erysipelas. The left leg was enormously swollen, being four times the size of the opposite limb. The speaker thought that the case was one of pseudo-elephantiasis, or possibly it belonged under the caption of elephantiasis nostras (a chronic streptococcic lymphangitis), and that it might be due to a focal infection.

DISCUSSION

DR. WALLHAUSER said the induration was rather too soft in character to suggest the diagnosis of elephantiasis.

DR. OULMANN said he did not regard this as a case of true elephantiasis, but a lymphostasis, probably due to pressure. While the legs were immensely swollen, the thighs, especially of the one side, were very slightly swollen, but the pubic region seemed to be affected also. He thought that in elephantiasis the swelling ought to be more uniform. The speaker said the pressure was probably due to some abdominal obstruction.

DR. ABRAHAMS said, in regard to these cases, that there was such a thing as idiopathic edema. He had seen the condition similar to that in this patient twenty-five years previously which affected one side of the body, and they had called it, at that time, unilateral idiopathic edema. In the last twenty-five years this had been traced to pressure in the pelvis, causing the edema. He would not be at all surprised if the condition in the present case was due to pressure on the pelvis and he would anesthetize this man and examine the pelvis. He said the condition was also found in women with fibroids.

DR. GILMOUR said an examination of the entire abdominal cavity ought to be made to find what caused this condition.

DR. MOUNT thought this condition due to a venous stasis and said it might also be due to pressure on the lymphatics.

DR. ABRAHAMS said that some years ago at the Lebanon Hospital he had seen a case of that kind, affecting only one lower extremity. The patient was from 40 to 45 years old and a sort of fixture in the hospital. During one summer they anesthetized the woman and found in one fossa an enormous mass of fecal matter. After this was removed the edema disappeared.

DR. GEYSER said he would suggest, if it were possible, that this patient be put to bed in an inclined position in which the extremities would be high and bandaged. In the course of one week's time, if it proved what they expected it to be, namely, an ordinary lymph stasis, the swelling would disappear, and if it were elephantiasis it would not disappear.

DR. SATENSTEIN said he did not see how any obstruction in the pelvis or abdominal cavity could persist for seventeen to nineteen years. Any form of

obstruction present so long would have been fatal by this time, such as sarcoma, glandular involvement and so forth, and with it one would have had other symptoms. If this were due to an obstruction, why was it limited to the lower extremities? The thigh on one side had never been affected in this patient, and the swollen condition was always below it. The speaker said he did not understand how edema was to be limited to the lower extremities under such conditions.

DR. GILMOUR said he had seen one case which looked like this, in a woman about 40 years of age. It involved one leg, extending to the thigh. She had what Dr. MacKee hinted at, that is, every few months she would have a red patch around the knee, evidently an infective lymphangitis, preceded by chills and fever, and she would be fairly ill. The speaker did not remember how often this happened, but he thought at least a half dozen times. Her blood had been tested and no filaria were found.

DR. SATENSTEIN said Dr. Gottheil had a case which had been presented three times and two of the succeeding times were two years apart. The condition had begun with a thickening around the ankle, and at that time Dr. Pisko had suggested tuberculosis on account of nodules in the skin. The patient was kept in the City Hospital for five years. She would get an attack of so called erysipelas every few months. There was an increase in the diameter of the extremities and the process had extended up to both hips when the speaker saw her last, and she then weighed about 300 pounds. The condition was markedly verrucous. *Streptococcus* organisms were demonstrated in the deeper tissues.

DR. WISE said the patient was under the care of Dr. Newman of Newark, who had made a tentative diagnosis of Milroy's disease. This was described as an idiopathic swelling of the lower legs. The speaker said he believed that such a condition ought to be considered in this case.

MOELLER'S GLOSSITIS. Presented by DR. WISE.

The patient was an adult woman from Dr. Fordyce's clinic. She presented superficial lesions of the tongue. There was a suspicion of Moeller's glossitis, but whether these lesions coincided with that diagnosis or not the exhibitor was not sure. The patches were smooth, glazed and painful, especially on eating spicy foods or condiments. They appeared and disappeared at irregular intervals and often healed spontaneously over periods of several weeks at a time. The areas of predilection were the sides and under surface of the tongue.

DISCUSSION

DR. OCHS said he had a similar case, which he had presented before the Society. The plaques came and went. The patient complained that the lesion was very sensitive to sharp foods. Very frequently the patient would get an attack of that character when the bowels became constipated, and she had quite a little inclination in that direction. She would have benign plaques and also what was known as "psoriasis" of the tongue. The speaker had two such conditions of the tongue which healed. Lately he had given the patient one salvarsan injection, but the trouble recurred. It responded, however, to the treatment for psoriasis. Whether it was a true psoriasis of the tongue or not he did not know. He was inclined to believe that the case presented fell in line with so called psoriasis of the tongue.

DR. GEYSER said he did not know what the name of the lesion might be. He thought if they put the patient on alkaline treatment, or any kind of vegetarian treatment, the disease would get well. From any food producing acid she would be prone to develop these lesions.

DR. WISE said he had seen such benign plaques of the tongue of which Dr. Wallhauser had spoken. Instead of being manifested by a denudation of epithelium, the lesion was raised, with distinct circles, which were visible at a

distance. This woman had excoriations, not raised lesions. The speaker said the etiology of Moeller's glossitis was unknown. Acid or alkali did not play any part in Moeller's glossitis. The patient he presented had a cachectic appearance.

MILIARY SYPHILID. Presented by DR. WISE.

The patient was a colored woman, aged 33, the duration of whose lesions had been four months. She was from Dr. Fordyce's clinic. Almost the entire body presented numerous closely set miliary papules, with large areas which had coalesced and had become scaly. In many areas the eruption presented pinhead sized, pitted scars, the remains of previous papules.

NOTICE

As we go to press we are saddened by the news of the untimely death of Dr. James C. Johnston. Dr. Johnston was taken ill in France, where he was in the service of his country. He died shortly after returning home.

Book Review

A MANUAL OF CLINICAL DIAGNOSIS, BY MEANS OF LABORATORY METHODS, FOR STUDENTS, HOSPITAL PHYSICIANS AND PRACTITIONERS. By CHARLES E. SIMON, B.A., M.D., Professor of Clinical Pathology and Physiological Chemistry in the University of Maryland Medical School and the College of Physicians and Surgeons, Baltimore. Ninth Edition, enlarged and thoroughly revised. Illustrated with 207 engravings and 28 plates. Lea and Febiger, Philadelphia and New York, 1918. \$6.00.

The ninth edition of Simon's well-known book on Clinical Diagnosis constitutes a thoroughly reliable and modern treatise on this subject. The book contains 851 pages and is well illustrated, printed, indexed and bound. The subject matter is divided into two parts, the first dealing with technical questions and the second is a collective presentation of the laboratory findings in the various diseases under their corresponding headings. Of special interest to the dermatologist and syphilologist are the well-written chapters on the Wassermann reaction, Langle colloidal gold test, globulin reactions, cell counting, examination for spirochetes, etc.

We believe that for a book on laboratory diagnosis, the author does not devote enough space to dark-field examinations. Every step of the technic should be described. If space is lacking it would seem advisable to omit the paragraphs on cultural methods. Goldhorn's stain is recommended when one desires to stain the spirochetes. This is an excellent stain but we understood that it deteriorates in a few weeks and, furthermore, we understand that it is not on the market.

It is disappointing not to find anything about the use of tuberculin for diagnostic purposes and we failed to find a word about laboratory examinations for the various ringworm fungi. Blastomycosis and actinomycosis are represented but sporotrichosis is omitted. These omissions are specialized subjects and probably should not be included in a general treatise of this kind.

Every physician, including the dermatologist and syphilologist, should possess a modern text-book on clinical diagnosis based on laboratory methods and for this purpose we can recommend the work under consideration.

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Original Communications

THE TREATMENT OF DERMATITIS VENENATA BY VEGETABLE TOXINS *

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PHILADELPHIA

This study was undertaken with the object of throwing some light on a number of factors relative to dermatitis venenata.

(1) The elaboration of an endermic test, by which we could tell to which one of the poisonous plants the particular individual was susceptible.

(2) To determine whether the intramuscular injection of the vegetable toxin derived from the homologous poisonous plants would influence the course of dermatitis venenata.

(3) To determine whether it is possible to desensitize individuals against dermatitis venenata by the intramuscular injections of the homologous vegetable toxin; the number of injections necessary for the process of desensitization, and how long such a protection would last.

(4) Lastly, whether complement-fixing bodies could be found in the serums of patients who have had an attack of dermatitis venenata and had been treated by the injection of the homologous vegetable toxins.

PREPARATION OF THE ACTIVE PRINCIPLE

Many attempts have been made to isolate the active principle of poisoned ivy or oak. The first effort in that direction was made by von Mons in 1779. In 1865, Maisch isolated his toxicodendric acid—

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* Read before the Annual Meeting of the American Society of Immunologists, May, 1917.

a volatile substance. This substance was shown to be entirely inert. The best and most recent work shows the active principle of poisoned oak or ivy to be a substance of a glucosidal nature, yielding, on analysis, gallic acid, fisetin, and rhamnose. The poison is nonvolatile, even when mixed with acetic acid or alcohol.

Briefly, the method of isolating this glucosidal substance consists of gathering the fresh leaves of poisoned ivy, for example, and extracting with absolute alcohol, filtering and precipitating. The precipitate is dried and extracted in Soxhlet extractors for ten hours. The extract obtained is dried at a low temperature. The toxin is carefully weighed and dissolved in absolute alcohol, to which a certain amount of sterile distilled water is added to make it nonirritating. By this method we obtained the poisonous principle of ivy, sumac and nettle which we employed in our experiments.

In this study, our efforts were directed to determine whether the injection of the poisonous principle could influence the eruption and the subjective symptoms of dermatitis venenata.

TECHNIC

The endermic reaction was performed by injecting 1/20 c.c. of each of the glucosidal vegetable toxic solutions of ivy, sumac and nettle, and also of the dilutant under the epidermis. A tentative reading was made in twenty-four hours after the injection and treatment was soon instituted, since dermatitis venenata is a fleeting affection, and also very annoying while it lasts. The final reading was made in forty-eight hours after the first injection. Those of the vegetable toxins which are positive, as shown by the development of a papule, erythema and some tenderness at the point of injection, are used in the intramuscular injections for purposes of treatment and desensitization.

In all, 12 patients were treated. First, an attempt was made by the endermic method to determine to which of the various plants the individual was susceptible.

REPORT OF CASES

The following is a brief résumé of the patients treated.

CASE 1.—Miss McD. This patient had dermatitis venenata for eighteen days, developing into an eczema. The endermic test showed positive ivy. Patient was given Rhus toxin, 0.3 c.c., intramuscularly. Two days afterward she received 0.5 c.c. of Rhus toxin and was discharged cured two days after the last injection.

CASE 2.—L. B. Dermatitis venenata of ten days duration and which involved hands, ears and legs. Rhus toxin positive. The patient was given 0.5 c.c. of Rhus toxin, intramuscularly. The itching subsided and lesions dried up. Given no local treatment. Discharged cured.

CASE 3.—H. L. Dermatitis venenata involving neck, chest, fingers, arms, lips and genitalia; duration, two days; attacks recurrent. Endermic tests showed sumac positive. Patient was given sumac toxin, 0.3 c.c., intramuscularly. On

the next visit, which was three days after the first, the patient stated that all swelling was gone, there was no more itching and the eruption had dried up. He received no local treatment.

CASE 4.—Miss P. Private patient; dermatitis on right leg, which developed one week after the patient was in the country. It was pronounced a dermatitis venenata and she was given directions for local applications by two physicians. When she consulted us, her leg was red and the skin itchy. The endermic tests showed sumac positive. She was given 0.5 c.c. of sumac toxin, intramuscularly. Two days later, the eruption was paler and more scaly and the itching had subsided. She was given 0.7 c.c. and on the occasion of her next visit, which was two days later, the condition had become normal. No local treatment was prescribed.

CASE 5.—S. L. (Referred by Dr. Finck.) Dermatitis venenata involving arms, chest and thighs. Itching was very marked. Lesions were still present. The patient had had local applications which influenced the lesions slightly, but not the itching. This attack was contracted when the patient passed a wooded area containing poisoned plants. The endermic tests showed ivy positive and sumac reaction weakly positive. The patient was given ivy toxin, 0.4 c.c., sumac toxin, 0.3 c.c. The next day the itching was gone and the lesions were drying up. In three days after the first visit the patient was well. At my request the patient continued to walk through that same wood and had remained free of any attacks of dermatitis venenata all summer.

CASE 6.—M. McC. Dermatitis venenata involving face, forearm and neck. Face markedly swollen and eye closed. Duration, twenty-four hours. The endermic reaction showed ivy toxin positive. He was given 0.5 c.c. of Rhus toxin and no local treatment. The next day, the swelling markedly improved and the itching was almost gone. In two days after the injection, he was cured and was discharged.

CASE 7.—D. S. Dermatitis venenata involving the entire body; face markedly swollen; eyes closed; marked itching. The endermic tests showed sumac positive. He was given 0.5 c.c. of sumac toxin, intramuscularly, but no local treatment; on the next day the swelling of his face and eyes was gone; lesions were still present on the arms. The next day he was given 0.5 c.c. of sumac toxin. The vesicles and some redness were still present on the arms. Owing to some crusting carbolized vaselin was prescribed. Four days after the first injection, the patient presented absence of swelling, no lesions, no itching, but a few crusts were still present on the arms.

CASE 8.—A. Aug. Dermatitis venenata affecting the right hand, which was swollen and studded with vesicles. Duration three days. Endermic tests showed sumac positive. He was given 1 c.c. of sumac toxin. The next day the swelling and the vesiculation were lessened. The improvement continued and in four days after his injection he was discharged cured. He received no local treatment.

CASE 9.—B. K. Dermatitis venenata involving face, ears, arms, legs and genitalia. Duration, two days. Endermic tests showed Rhus toxin positive. He was given 0.7 c.c. of Rhus toxin, intramuscularly, which was followed by great improvement. On the next day he was given 0.5 c.c. of Rhus toxin and when he reported the following day, the swelling and itching were gone. Vesicles were drying up and erythema was still slightly present. The patient received no local treatment.

CASE 10.—A. D. L. Dermatitis venenata involving hands and legs, duration from four to five weeks. The parts affected were red, presented vesicles having a linear arrangement. Subjectively there was considerable itching. The condition had recurred yearly for three or four years. The endermic test showed ivy toxin positive. He was given 0.7 c.c. of Rhus toxin and the next day the itching and redness were entirely gone and the patches became scaly. Two days following the first injection he was given 0.5 c.c. of Rhus toxin. There was no local treatment. Four days after the first injection, the patient played

golf among poisonous weeds and had no recurrence, although on every previous occasion, when playing in that particular field, he would develop a dermatitis venenata. On the occasion of this visit he was given 0.5 c.c. of Rhus toxin intramuscularly, and 0.5 c.c. on the next day also. Our reason for administering these last two doses was to get an idea as to how many treatments were necessary to desensitize this patient and how long this desensitization would last. For one month, this patient was free from dermatitis venenata although frequently exposed in such manner as to favor an attack; but at the expiration of the month, he developed another attack of dermatitis venenata.

CASE 11.—T. A. U. Private patient. Dermatitis venenata on hands and arms. Duration, two days. Endermic tests showed sumac strongly positive and Rhus weakly positive. He was given sumac 0.5 c.c., Rhus toxin 0.4 c.c. The next day itching was gone and he was given sumac, 0.5 c.c., ivy toxin, 0.5 c.c. Four days after the first injection the lesions had all disappeared. He was given two more injections and although the patient exposed himself again, he had remained free from an attack of dermatitis venenata. No local treatment was prescribed.

CASE 12.—W. L. Private patient, referred by Dr. Meyer Solis-Cohen. Dermatitis venenata, generalized; duration, two days; contracted while picking ivy leaves. He has had three previous attacks. There were marked swelling, vesiculation and itching. Local remedies were applied for two days without any improvement either in the subjective symptoms or the objective phenomena. He was given 0.6 c.c. of Rhus toxin, intramuscularly. The next day the swelling was reduced considerably and itching was much less. There was no local treatment. He was given 0.7 c.c. intramuscularly; on the next day, 0.8 c.c. was given intramuscularly. By this time the patient was convalescent and this was only on the third day following the first injection. Five days after the first visit the patient was absolutely normal.

COMMENT

In all, the serums of seven patients were studied by means of complement fixation and in every one the reactions were negative. The antigens employed were ivy, sumac and nettle and the cholesterinized syphilitic antigen was also employed. This syphilitic antigen was also negative in all the serums tested. The method of performing these complement fixation tests was similar to that used in bacterial complement fixation.

RÉSUMÉ

1. From our experiments, we have reason to believe that the intramuscular administration of the toxin of the various poisonous plants has an influence on the course of dermatitis venenata.

2. By no means do we advocate this procedure as a routine method of treatment except in extremely severe cases, or when there is a desire to attempt desensitization.

3. From our own observation and the experiments of others, we believe that the immunity of dermatitis venenata is a tissue immunity, fleeting in character and one that has to be frequently renewed.

4. It is our impression that it is possible to develop an endermic test for the detection of the particular poisonous plant to which the individual is susceptible.

5. In the few cases we have tested, complement fixation in dermatitis venenata has proved negative.

6. It is our impression that it is possible to desensitize individuals against dermatitis venenata although our experience as yet is very limited.

It is hoped that during the coming summer we will have many opportunities to try out the desensitization of dermatitis venenata so that we can come to a definite conclusion as to the value of the procedure.

EXPERIMENTS WITH ROENTGEN RAYS AND RADIUM *

WILLIAM H. GUY, M.D.

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PITTSBURGH

Better results are obtained with any therapeutic agent as exact knowledge of its physical properties, dosage, mode of application and physiologic action increases. Conversely, inaccuracies are productive of indifferent or disastrous results. The experiments recorded in this communication are for the purpose of substituting facts for clinical impressions, and it is hoped that the work may prove of some practical value to the science and art of superficial roentgentherapy.

Most of the unsatisfactory and untoward effects are caused by inaccurate dosage. Various instruments for the quantitative measurement of the roentgen ray have been designed, all more or less accurate in skilled hands. The Hampson radiometer is objectionable because it is difficult to obtain pastilles that match the Hampson zero. Also, when several of these instruments are compared, it is found that the colored index differs to a rather marked degree. The objection to the Corbett radiometer is the difficulty of obtaining pastilles that match the zero tint and the method of comparing the pastille with the zero allows a confusing halation. The Kienböck radiometer is accurate and in the hands of experienced operators gives excellent results, especially in deep therapy. However, certain objections obtain: a strip of the exposed photographic paper must be developed before the dosage can be read; the paper, the time of development, the temperature of the developer, the composition of the developer, etc., must all be standardized and any variation in the technic will affect an error of dosage. The Ionto radiometer, which depends on the ionizing effect of the ray on gases, is still in the experimental stage but the results are promising.

The objections just mentioned are well known to roentgenologists of experience and have been recorded by many of them. These objections are to a large extent wanting in the Holzknecht radiometer. In this instrument the pastille is cut in half, one half is placed under the transparent, graduated color index, and the other half is exposed to the roentgen ray. This allows of a very accurate comparison of colors. The chief difficulty with this instrument is that the color index is not permanent.

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The pastille method is objected to on the ground that the pastilles of barium platinocyanid are affected by light, heat and moisture, as well as by roentgen rays. As has been demonstrated by others, these difficulties can be readily overcome. The effect of heat can be eliminated by keeping the pastilles in a ventilated humidor in which an even saturation of the contained air is obtained by including a small vessel full of water. Light will cause the treated pastille to fade, this being particularly true of daylight, and therefore pastilles are always enclosed in small light proof envelopes while exposed to the action of roentgen rays. This reduces the possibility of error but does not eliminate it. Treated pastilles exposed to light from a 16 candle-power lamp were found to fade an appreciable amount after three minutes' exposure, this being particularly true in the higher readings. Thus to be accurate, readings should be made within the length of time stated after being removed from the envelope and immediately after treatment, because there will be a slight fading after a considerable length of time even when the pastille is enclosed in black paper.

To determine a possible source of error from the heat produced by the tube while in action, a thermometer was exposed at different distances from the tube, the temperature being noted when the anode exhibited different degrees of heat. Short of white heat the temperature rise did not exceed 10 C. When white hot, the rise amounted to as much as 25 C. The heat, of course, varied with distance, but from 1 to 4½ inches from the face of the tube the difference, except at white heat, represented only a possible variation of 5 or 6 C. With the anode white hot the temperature rise at 1 inch was 25 C.; at 2½ inches, 18 C., and at 4½ inches, 11 C. During these experiments the room temperature was maintained at 26.6 C. and all windows and doors closed to eliminate drafts. To determine the effect of the temperatures demonstrated, pastilles were exposed to different temperatures for varying lengths of time in incubators. It was found that incubation for an hour at 51 C. was not productive of any color change; untreated pastilles were not colored, and treated pastilles did not fade nor did they assume a darker hue. Unexposed pastilles which were exposed twenty-four hours or longer, were colored considerably and exposed pastilles became darker. It was noted that color added by heat was permanent, not fading after several hours' exposure to bright sunlight. I feel that I am justified in the conclusion that error is not likely to occur through coloration of pastilles by heat while the tube is in action.

THERAPEUTIC APPLICATION

Epilation of the scalp by roentgen rays is the most effective method of treating favus and tinea infections of the scalp and in skilled hands is a safe procedure as evidenced by the fact that some 200 cases have been epilated at the Vanderbilt Clinic during the past few years,

the work having been done by several different men, and not a single permanent alopecia produced. The technic used was perfected by Kienböck and Adamson; briefly it comprises an application of H* 1 to each of five points on the scalp, equidistant from each other, the application being so made that overlapping of rays will give uniform dosage over the entire area. In the course of this work it was noticed that certain cases not completely epilated nevertheless recovered, and that in a few cases in which comparatively intensive scalp treatment was used over limited areas, we did not get the expected permanent loss of hair. In an attempt to throw some light on the subject, patients were treated in various ways. We found that H $\frac{1}{2}$ produced no alopecia; H $\frac{3}{4}$ caused hair to fall from tinea patches, the surrounding healthy hair remaining firmly rooted. These patients were cured in some instances if they followed directions as to shampooing, the use of ointments, etc., but usually new areas were infected in the course of epilation from the primarily diseased spots. Results obtained with from H $\frac{3}{4}$ to H 1 varied from those just described to complete epilation. Fractional treatments by the same technic gave the same result as the single application of H 1, provided the total dosage in two weeks equaled that applied by the original method. To determine the margin of safety in scalp epilation, patients were treated with the usual H 1 Kienböck-Adamson method, and then additional dime-sized areas on the back of the scalp were given H $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$, respectively. It has been difficult to follow up these cases because as soon as the infection was cured our patients promptly disappeared. However, from the few cases still under observation, we are led to believe that H $1\frac{1}{2}$ will not necessarily cause permanent loss of hair, but that H $1\frac{3}{4}$ will nearly always do so. Thus, by employing H 1 (skin distance) for the epilating dose, H $\frac{1}{4}$ or $\frac{3}{8}$ is the margin of safety. Perhaps even H $1\frac{1}{2}$ may be applied because we have noticed that after a much longer time than is usually required for regrowth, hair appears in some of the experimentally overtreated spots. However, these experiments are not completed and will be reported later.

TECHNIC

The technic employed in this work was that in use at the Vanderbilt Clinic by Drs. MacKee and Remer, whose instruction and supervision have made this work possible. The Coolidge tube with its remarkable flexibility and uniformity of output was used exclusively. The Holzkecht radiometer and unit before mentioned were the standards of quality, pastilles being read at skin distance. When fractional doses were to be used, the tube and machine were standard.

* H = Holzkecht.

ized with definite milliamperage and spark gap in the high potential circuit, and at definite distance from the anode of the tube to the pastille; the time required to obtain a full unit was then noted, and by maintaining all other fixed factors and varying the time, various fractions of a unit were obtained. For determining doses approaching skin toleration, the pastille was placed on the surface treated for each application.

Qualitative measurement was accomplished by the Benoist radiochromometer. We have long known that rays from the roentgen tube were not homogeneous but composed of rays of various wave lengths and corresponding powers of penetration. It has also been recognized that penetration depends on the voltage passing through the tube. With these facts as premises, I have attempted to show the relationship between the Benoist readings on the one hand and the length of the parallel spark gap on the other. Readings by the instrument named were made while the tube was backing up a spark gap of 1, 2, 3, 4, 5, 6, 7, 8, and 9 inches, respectively, and it was found that there was a definite progression in penetration of the rays as the spark gap length was increased, and that the resulting average penetration depended entirely on the gap and bore no relationship to the quantity of current used. Using any gap length as a constant factor and varying the number of milliamperes passing through the tube made no difference in the resulting Benoist readings. It is recognized that the kind of spark gap terminals and the kind of machine as well as the personal factor, bearing more particularly on the proper way of determining the length of the gap, may be productive of different results, but these differences will be of no practical importance. In these experiments the length of the gap in inches was noted when just an occasional spark passed over the gap in preference to going through the tube. The following results were obtained a number of times with but slight variation:

TABLE SHOWING THE RELATIONSHIP BETWEEN THE LENGTH OF THE PARALLEL SPARK GAP AND THE BENOIST READINGS

Spark Gap	Benoist	Spark Gap	Benoist
1 inch	2	6 inches	8
2 inches	3	7 inches	10
3 inches	4	8 inches	11
4 inches	6	9 inches	12+
5 inches	7		

From a practical standpoint these facts are of importance because they obviate the necessity of constantly using some method of direct measurement of quality. One is able during each treatment to apply a ray of desired penetration by an adjustment of the parallel spark gap.

SELECTION OF RAYS

Considerable controversy exists as to the advisability of using rays of high or low penetration in skin diseases. Approaching this problem, H 1, B 10 and H 1, B 3 were applied on the back of a man of fair complexion. The application was so arranged that on one side of the spine H $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{2}$, and 1 B 10 were applied close together, and on the other side H $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and 1 B 3. An erythema was obtained that was identical, quantity for quantity, of the B 10 and B 3 ray applied. This was corroborative of an experiment reported by Remer and Witherbee. Suitable clinical cases were then treated, half the diseased area receiving B 10 ray and the other B 3 ray, each area receiving the same quantity. Such diseases as acne, sycosis, eczema and psoriasis responded well to both, but rays of high penetration gave the best results, especially so in deep-seated lesions. Lupus erythematosus was in one patient cured by a ray of very low penetration, but the result obtained is inconclusive because the experiment was not properly controlled; another case is now under treatment, lesions on one side of the face receiving high ray while those on the other side receive low, but it is too soon to expect any result. Deep-seated lesions are best treated by rays of high penetration on account of the filtering effect of the tissues.

ROENTGEN RAYS AND RADIUM

Comparisons were made of roentgen rays and radium in suitable cases and in most instances the end-results were similar. However, radium gave by far the better results with lupus erythematosus and vascular nevi, and was the method of choice in dermatoses that were difficult to treat with roentgen rays on account of location. In a few dermatoses radium was effective and roentgen rays useless; in others roentgen rays were chosen because of greater ease of application over large areas and because of greater output of energy. In still other conditions roentgen rays only are practical, examples of which are extensive mycotic diseases of the scalp, widespread mycosis fungoides, etc.

TREATMENT OF LARGE AREAS

In treating large areas, as is necessary in certain dermatological conditions, it is advisable either to make numerous applications, protecting with lead all except the area to be treated, or else by allowing overlapping of rays from different focal points to obtain approximate or equal dosage over the entire surface. In either case it is important to know the distribution of the rays. To determine this the open tube was placed with its long axis parallel to a plane surface and a definite distance from the surface to the anode established. Then two rows

of pastilles were placed on the table, one row parallel to the long axis of the tube and the other at right angles to the first and crossing it directly beneath the anode, each pastille being placed at a fixed distance from its neighbor. Roentgen rays were applied until the pastille at the center registered 1 H unit. Then the other pastilles were read and the results charted. At an 8 inch distance from the anode with H 1 on the center pastille, it was found that pastilles 2 inches distant in all directions gave practically the same reading as the central one; that 4 inches in both directions and in the long axis of the tube, between $\frac{1}{2}$ and $\frac{3}{4}$ H were obtained; that at right angles to the long axis of the tube, pastilles still registered close to H 1; that at 7 inches in the long axis of the tube, the reading was something less than H $\frac{1}{2}$, and at 10 inches in the same direction pastilles registered 0; at 7 inches, at right angles to the long axis of the tube, something slightly over H $\frac{1}{2}$ was obtained, while at 10 inches pastilles still read a doubtful H $\frac{1}{4}$. Thus uniform dosage, instead of being circular as we expected to find it, is elliptical with the long axis of the ellipse at right angles to the long axis of the tube. At an 8 inch treating distance it measured about 8 by 4 or 5 inches. Thus at 8 inches the selected points for treatment should be not more than 5 inches apart in the long axis of the tube, and not more than 8 inches apart at right angles to the long axis of the tube if the method of multiple application be followed. On the other hand, if one uses the open tube and allows for overlapping of rays, then in the long axis of the tube treatments should be applied about 10 inches apart; at right angles to the long axis of the tube, about 15 to 20 inches apart. This of course applies only to a flat surface, concavities and convexities being allowed for, according to the law that intensity varies inversely as the square of the distance, excepting when using filtered rays, when the rule of direct proportion applies, as recently established by Remer and Witherbee. In treating large or convex surfaces, the law relative to the intensity being in direct proportion to the sine of the angle of incidence must be considered. By increasing the distance from the anode we found that the size of the elliptical field increased proportionately, but was not as well defined as at the shorter distance. On the other hand, when the tube was moved nearer the field was narrowed. Thus, if one desires to treat a comparatively large area by a single application, approximately accurate dosage may be obtained by placing the tube farther away.

DETERMINATION OF DOSAGE

In determining dosage with instruments depending on the effect of roentgen rays on pastilles of barium platinocyanid, experience is necessary to be able to judge when the pastille should be read. It is

obviously essential that one know about when to first read his pastille in scalp epilation, in which the margin of safety is small, but it is just as essential to obtain accurate dosage each and every time the roentgen ray is applied. Certain physical laws determine the amount of roentgen rays delivered to any point; quantity varies inversely as the square of the distance; it varies directly as the milliamperage is increased or diminished; it varies directly with the length of the parallel spark gap and directly with time. Shearer showed that multiplying milliamperage by the length of the parallel spark gap in inches, multiplied by the time in minutes, divided by the square of the distance in inches, will equal units H. The resulting units H may vary on different machines, but after having established the equation for any machine, the rule will be found to be very helpful in determining approximate dosage, and by referring to the equation established, any unknown factor may be determined. It is not recommended for the accurate estimation of dosage, being of relative value only, but it certainly is of value in telling when to read a pastille when all the factors are known except the time.

Shearer's formula follows:

$$\frac{M. \times S.G. \times T.}{D^2} = \text{Units H.}$$

In the use of this rule it is of importance to remember that variations in the point of reading the gap, the kind of spark terminals, the accuracy of the milliamperemeter, etc., will produce widely divergent results.

FOLLICULITIS ULERYTHEMATOSA RETICULATA *

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At the January, 1913, meeting of the New York Dermatological Society Dr. Whitehouse¹ presented a young woman who exhibited an interesting condition of the face. The published report does not agree with the recollection of, nor with the notes made of the case, by Dr. MacKee. The eruption (according to distinct recollection) was limited to the cheeks and the lateral aspects of the nose. It consisted of erythema and closely crowded, irregular areas of atrophy, separated by narrow ridges of apparently normal skin. Reticulation, honeycomb and network are the words that can be employed to describe the striking appearance. Whether or not comedones were present cannot be recalled; nor is anything known about the past history of the patient.

The above-mentioned case was instantly recalled when, in the latter part of 1914, a girl presented herself at Dr. Fordyce's clinic with an identical condition. This patient (Case 1) was presented by Dr. MacKee² at the February, 1915, meeting of the New York Dermatological Society and at the Clinical Session of the Thirty-ninth Annual Meeting of the American Dermatological Association, May 14, 1915. This patient, with one additional case, which came under the observation of Dr. Parounagian in 1915, constitutes the basis of this communication. Dr. Parounagian³ presented his patient (Case 2) at the December, 1915, meeting of the Section on Dermatology of the New York Academy of Medicine. The presentation of these patients was followed by a discussion in which no one was able to identify the disease nor had any one seen a similar case.

REPORT OF CASES

CASE 1.—G. B., a girl, aged 16, was born in the United States of Jewish parents.

History.—The patient's family history was negative. Her past personal history revealed that, according to the patient and her mother,

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1. Whitehouse: Case for Diagnosis (Keloidal Scars), *THE JOURNAL CUTAN. DIS.*, 1913, 31, p. 489.

2. MacKee: Reticulated Atrophy of the Skin Following Comedo, *THE JOURNAL CUTAN. DIS.*, 1915, 33, p. 494; *ibid.*, 1916, 34, p. 382.

3. Parounagian: Reticulated Atrophy, *THE JOURNAL CUTAN. DIS.*, 1916, 34, p. 463.

the disease was first noticed at the age of 8 years. Comedones, erythema and pitted scars were noted at about the same time. It was impossible to ascertain which developed first. There were never any pustules, vesicles or papules. For a year or more the patient was under the observation of Dr. Lapowski at the Good Samaritan Dispensary, who removed some of the comedones and prescribed local applications similar to those employed in acne. The disease had been steadily progressive and it was still active when she entered Dr. For-dyce's clinic.

The patient had had the ordinary diseases of childhood with the exceptions of scarlet fever, varicella and variola.

The patient called attention to the fact that she had never had more than a dozen comedones at a time and that she was of the opinion that some if not most of the scars appeared without antecedent comedones. In any event the evolution of the eruption was very slow and steady.

Physical Examination.—The patient was a healthy and well developed brunette. Mentally she was bright—no suggestion of hysteria or neurasthenia. All the body functions were normal. Menstruation began at the age of 14. The Wassermann reaction was negative; the von Pirquet test was positive.

Description of Eruption.—The eruption was limited to and symmetrically distributed over the greater part of both cheeks. The skin over the rest of the body, the appendages and the mucous membranes were normal.

The eruption consisted of numerous closely crowded, small areas of atrophy separated by narrow ridges. This produced a reticulated, honeycomb or network appearance (Figs. 1 and 2). The individual atrophic areas were pitlike, very abrupt, about 1 mm. in depth and ranged in size from $\frac{1}{4}$ to 2 sq. mm. In places, two or more depressions had united to form areas of perhaps 3 sq. mm. or even larger. They were very irregular in shape—square, polygonal, triangular, oval, oblong, serpentine, etc.

There were a few small comedones both in the depressed areas and in the ridges. A number of milium bodies were noted in the ridges. On close inspection with a lens small follicular horny plugs were noted.

The skin covering the narrow partitions or ridges was on a level with that covering the unaffected portions of the face. At first glance one gained the impression that the skin covering the ridges was normal, but on close inspection it could be seen that the skin was shiny—it looked waxy and stretched. In addition, on palpation, the ridges seemed more resistant—harder than the normal skin. The entire affected area was erythematous. At a distance this erythema appeared to be equally distributed, but on close inspection it was seen

that the depressions were markedly erythematous while the ridges were only slightly redder than the normal skin. At times the erythema was more pronounced than usual and then a sharp line of demarcation could be seen between the diseased area and the normal surrounding skin.

CASE 2.—L. F., a boy, aged 9, was born in the United States of Hebrew parents.

History.—The patient's family history was negative. His past history disclosed that the eruption began, according to the boy's parents, at about the age of 5. Comedones were not noticed until attention was attracted by the scarring. The mother thought that both the comedones and the scars had occurred simultaneously. The evolution of the affection was very slow and apparently was independent of any other disease. The patient had not had varicella nor variola. There had never been any papules, pustules or vesicles.

Physical Examination.—The boy was poorly developed physically and he had pulmonary tuberculosis. All the general body functions were normal. The Wassermann reaction was negative; the von Pirquet test was positive.

Description of the Eruption.—With a few exceptions the description of the eruption in Case 1 will answer here. In the boy (Fig. 3) there were a larger number of comedones but fewer milium bodies. The comedones were larger and most of them were situated in the depressions. The ridges were harder and more waxy in appearance. The erythema was more pronounced and there was the same symmetrical distribution and limitation. There was no seborrhea—no papules, pustules, vesicles, desquamation, nor were there any subjective symptoms.

On the upper part of the right cheek there was a circular area, one-fourth inch in diameter, in which there was atrophy but no reticulation. Another smooth scar, near the mesial portion of the same cheek, can be seen in the photograph (Fig. 3). This scar was from the biopsy.

Subsequent History of Both Cases.—Both patients are still under observation (March 10, 1918). They have had no treatment of any kind for nearly two years, but a spontaneous improvement has occurred. There are now very few comedones in the girl's cheeks and fewer than formerly in the boy's face. In other words, the comedones seem to become fewer in number as the individual grows older. The erythema is still very pronounced and sharply limited in the boy and perhaps a little less marked than formerly in the girl. The ridges have flattened out a little in the girl so that the reticulated appearance,

while still very distinct, is not quite so pronounced as when the patient first came under observation.

HISTOPATHOLOGY

Tissue was obtained from both patients. It was removed by a cutaneous punch, under cocaine anesthesia, and each piece included a ridge, an atrophic area and a comedo. The tissue was fixed and prepared in accordance with the usual technic employed in Dr. Fordyce's clinic.⁴ Serial sections were cut at about 6 microns. The routine stain was hematoxylin-eosin, but the van Gieson, Weigert and acid orcein stains were also employed.

Inasmuch as the histologic picture in both cases was identical the following description will answer for both patients.

Hair Follicles.—The most striking feature was the alterations in the hair follicles and the large number of cysts derived therefrom. The pathology was somewhat of a surprise. Clinically, with the exception of the few scattered comedones and horny plugs, there was no indication that the affection was so markedly follicular. Throughout the sections there were numerous large, acanthotic, enormously dilated follicles filled with horny material. The large follicles were so tortuous that with a few exceptions it was impossible to obtain a longitudinal section of more than a very small portion of any one follicle. On the other hand, numerous very small follicles were depicted throughout their entire length in a single section.

In many instances it was possible to trace or build up an entire follicle by running through the serials (Fig. 5). But this was not always so. Some of the follicles seemed to be composed of cell nests and cysts, some of which appeared to be completely isolated while others were connected by slender epithelial bridges. Hypothetically this phenomenon allows of two possible interpretations: (1) an anomaly of development giving rise to budding processes, these budding processes making abortive attempts to form hair follicles; (2) that the overdevelopment of the follicle produced a tortuosity, and the pressure of the marked hyperkeratosis eventually caused atrophy in places, giving rise to the isolated and slenderly connected cell nests and cysts.

That the disease affected the hair follicles early in their development was apparent from the fact that even the very small lanugo follicles showed a hyperkeratosis and some of them were considerably thickened, although none of the very small follicles were tortuous. In both the lanugo and in the large follicles the hyperkeratosis extended

4. Refer to Freeman's article on "Preparation of Skin Tissue for Microscopical Study," *THE JOURNAL CUTAN. DIS.*, 1916, 34, p. 541.

down almost to the bulb. Hairs were present in both types of follicles. While the hairs in the large follicles were deviated from their normal path, there was not the twisting and tortuosity seen in monilethrix and keratosis pilaris.

In one or two instances a hair bulb and about a third of the follicle were found in the midcutis, lying parallel with the epidermis and in one section a hair bulb was turned almost completely around.

It was not uncommon to find two, three, and even four follicles uniting to form a single follicular orifice. In the upper cutis the follicles frequently anastomosed, sometimes solidly, at other times by narrow epithelial bridges. It is possible that this anastomosis was caused by the union of budding processes thrown out in an attempt to produce sebaceous glands. This, also, may explain the development of the "double comedones," several of which were found in both cases. In this connection it was noted that the sebaceous glands were not as well developed nor as numerous as one would expect to find them in the face of an individual 16 years of age. At times the "double comedones" involved only two follicles but in a few instances they were very large and three or four follicles entered into the peculiar formation (Figs. 7, 8 and 9).

Cysts.—All through the cutis—from the papillary layer down to the fat, were larger numbers of cysts and cell nests of varying size—some very small, others very large. Their general appearance and their distribution suggested, at first glance, some types of benign cystic epithelioma or trichoepithelioma (Fig. 9).

For the most part it could be ascertained, by studying the serial sections, that the cysts were simply cross and tangential sections through extremely tortuous hair follicles. At times, however, nothing but a slender connecting bridge could be discovered and in some instances they appeared to be completely isolated (Figs. 4, 11 and 12). While this isolation might have been secondary to pressure atrophy it is suggestive of a primary anomaly of development. And inasmuch as isolated cysts were found in the lowermost portion of the derma it might be assumed that they were formed from budding processes other than those involved in the production of sebaceous glands.

The larger cysts were composed of two or three layers of compressed epithelial cells. The lumen in some instances contained debris but as a rule the content was horn which was at times loosely deposited, at other times concentrically arranged with the formation of whorls. As these cysts were followed through the serials their walls became thicker and thicker until there was simply a mass of epithelium—a cell nest.

Vascular Changes.—The vessels and lymph spaces throughout the entire derma were dilated. This was most noticeable in the midcutis.

Here, in some sections, the dilatation was marked and many of the vessels contained red cells and coagulated serum. The walls of the blood vessels, including the endothelium, were swollen and in some instances the endothelial cells were detached. There was no hyperplasia of endothelium. In one section a blood vessel had undergone complete hyaline degeneration.

Infiltration.—In most of the sections the infiltration was mild to moderate, but in some places it was rather dense (Fig. 10). The infiltration was perivascular and was also conspicuous along the follicles, both the lanugo and adult follicles being involved. The infiltrate consisted of cells of the small round cell type. No plasma cells nor mast cells were encountered. The infiltration was most pronounced in the midcutis.

Connective Tissue.—There was considerable edema in places. It was most marked in the immediate vicinity of the vessels. Here the perivascular lymph spaces were widely dilated, the collagen had for the most part disappeared and its former site was occupied by the infiltrating cells. The same condition prevailed in the immediate neighborhood of some of the hair follicles.

Throughout the midcutis the collagenous bundles were swollen and separated and in places a granular change was noted. Edema and some granular degeneration was also noted in the upper part of the cutis. The papillary body, for the most part, consisted of a broad plate, due to the absence of the rete pegs. Of great interest was the tinctorial change in the collagen. With hematoxylin-eosin the connective tissue of the papillary body assumed a bluish color—a probable basic degeneration. In some sections this was very marked and extended down through the midcutis. In most sections this tinctorial change occurred only in the vicinity of the follicles while in the others it was scattered throughout the entire upper cutis. In places, particularly around the hair follicles, the collagen was very compact—dense, and showed a marked affinity for the acid stain. Finally, there was a definite retraction of the connective tissue. In some sections this feature was very marked, the derma being very narrow, so that the subcutaneous tissue and the coil glands were much closer to the epidermis than in the normal condition (Figs. 9 and 11).

Appendages.—The subcutaneous tissue was normal. The coil glands were somewhat dilated. One coil duct was found that was dilated and contained debris. Some of the orifices of the coil ducts were hyperkeratotic. The sebaceous glands were small numerically and in size, in the girl, as compared with the skin of the face of individuals of the same age. In the boy tiny sebaceous glands in an early stage of development were frequently seen. The glandular epithelium

appeared to be normal. The arrectores were edematous. The elastica was fairly well preserved. In a few places it was either fragmented or absent, but for the most part it was practically unchanged.

Epidermis.—There were no noteworthy changes in the epidermis. In the vicinity of the follicles it was markedly thickened, elsewhere it was thinned. There was no widespread hyperkeratosis—only in the follicular orifices. The rete pegs were conspicuous by their absence.

Comedones and Horny Plugs.—The comedones (black at the distal end and easily expressed) contained some fat. The horny plugs (grayish, and extracted with difficulty) contained very little, if any, fat. Cultural experiments were negative.

HISTOLOGIC RÉSUMÉ

Slightly atrophic epidermis with loss of rete pegs. Inflammation in the derma manifested by vascular and lymphatic dilatation, congestion, edema and perivascular and perifollicular infiltration of small round cells. Degenerative changes in the connective tissue ending in atrophy and retraction. Underdevelopment of the sebaceous glands and a marked overdevelopment of the hair follicles. Horn cysts derived from the hair follicles scattered throughout the cutis, some of which are connected to the hair follicle by only a slender epithelial bridge or are completely isolated.

Cause of the Atrophy.—There can be little doubt that some of the atrophy is due to degeneration of collagen. Whether this degeneration is secondary to the edema and circulatory disturbances caused by pressure, or whether it and the inflammation precedes the follicular changes, cannot be ascertained at the present moment. Degenerative changes were found in the ridges as well as in the depressed areas and it is possible that, later in life, the ridges will flatten out and the reticulated appearance become less marked. There is evidence which suggests the possibility that some of the depressions might be due to the very large "double comedones." These "double comedones" cause an enormous amount of pressure and undermine the epidermis, so that in the serial sections one frequently encounters small areas of skin that are completely isolated. Furthermore, when a depressed area is followed through the serials it is often found to be associated with a large "double comedo" (Figs. 7 and 8).

LITERATURE

A search of the literature has been made but very little has been found that has any interest in common with our cases. Undoubtedly there have been reports and perhaps even articles describing the condition that have been overlooked on account of misleading or unsuspected

titles. If any author has been overlooked we apologize for the omission and will be pleased to add the reference as an erratum. A few literary reports have been discovered in which the cases are similar if not identical to ours. They are as follows:

WHITFIELD (*Proc. Roy. Soc. Med.*, 1914, 7, p. 87) reports a case under the legend, "Case of Cutaneous Atrophy, with Comedo." The patient was a boy of 7, who presented an area of thin, white, atrophic skin on the left temporal region in which there were small pits many of which were plugged with comedones. This was said to have begun shortly after birth. There were similar areas under the chin. On the scalp there were two linear lesions consisting of baldness and comedones. Occasionally there was a little suppuration around the comedones. Whitfield expressed some comedones and was unable to detect acne bacilli but did identify the bottle bacillus.

PERNET (*Med. Press*, May 31, 1916) under the heading, "Atrophoderma Reticulata Symmetrica Faciei," reports a case which, in this connection, merits special attention. The patient was a girl, 12 years of age. She had had measles at the age of 4 after which the skin of the face remained rough until she was 11 years of age when the cheeks began to assume the appearance about to be described. (These facts were obtained from the patient's mother and should be interpreted accordingly.) There had never been any ulceration or pustules. No medicines had ever been applied to the face. The eruption was limited to the cheeks, was symmetrically distributed and roughly triangular in outline. To quote from Pernet: "The parts are slightly reddened and have a honey-combed appearance. On close examination with a lens a superficial atrophy of the skin can be made out. The picture is that of a fine network, the meshes of which form a raised, delicate tracery enclosing slightly depressed atrophic areas. At the borders of the patches small pinpoint depressions can be seen. The slight, bluish redness is due to a certain amount of telangiectasia here and there, especially about the margins of the affected areas. With the exception of a slight degree of xerosis about the legs, the patient's skin generally is good." Nothing is said about the presence of comedones. Pernet states that he has seen two or three such cases but he never recalls having seen the condition mentioned in the literature. A biopsy was not made.

HEIDINGSFELD (*THE JOURNAL CUTAN. DIS.*, May, 1918, p. 120) under the heading, "Atrophia Maculosa Varioliformis Cutis" described the case of a man, aged 22, who presented numerous pitted depressions on both cheeks which exactly resembled the scarring following smallpox. The patient, however, had never had smallpox nor had there ever been any pustules, suppuration, comedones or anything that could account for the atrophy or scarring. There was no erythema and there were no subjective symptoms. The condition had started at the age of 16 and new atrophic areas were constantly forming. Heidingsfeld does not mention a reticulated appearance nor do his photographs show such an arrangement of the areas of atrophy. The pitted scars ranged in size from a pinhead to a split pea. A biopsy was not obtained.

UNNA (*Histopathology*, p. 1084) describes a single example of a condition that he called "Ulerythema Acneiforme." "On both cheeks of a young girl there appeared red, flat, somewhat elevated papules, inside of which comedones developed; the redness disappeared and the skin became white and scarlike. The process affected the lobes of both ears and it healed with an irregular epidermis and a branched, grooved scar on the border of the ear leaving behind large comedones in the lobules. At the border of the antitragi and on the cheeks, there was formed a peculiar superficial scarring without comedones which gave the skin a worm-eaten appearance. A number of peculiar, large comedones without any scarring, crossed the scalp from one ear to the other."

Histologically there was a generalized hyperkeratosis and acanthosis which, however, was especially marked near the hair follicles. There was consider-

able infiltration with small round cells, edema and dilatation of the vessels and lymph spaces. The connective tissue underwent atrophy so that the cutis was not as deep as normal. The hair follicles contained horny plugs; the sebaceous glands were atrophic. The coil glands were normal. There was no change in the elastic tissue.

THIBIERGE (article on Acne in *La pratique dermatologique*) mentions a condition which he calls "acne vermoullante." The affection consists of grouped comedones in the cheeks of children; when these closely crowded comedones are removed little holes are left, and there is produced an appearance somewhat like a piece of wood that is worm-eaten.

COMPARISON AND DIFFERENTIATION

UNNA's case possessed features that suggest the possibility that ulerythema acneiforme and folliculitis ulerythematosa reticulata are the same disease or belong in the same group. Clinically his case differed from ours in the presence of red papules and in the fact that the erythema disappeared with the papules. Also, the location was somewhat different. On clinical grounds, alone, the two conditions cannot be separated.

Histologically there were no horn cysts or double comedones. There was atrophy of the connective tissue but this atrophy followed the edema and was not due to degeneration of the collagen as in our cases. Unna found a generalized acanthosis and hyperkeratosis; we did not.

We are unable to conclude whether or not the affection described by Unna is the same as that shown in our cases. It is exceedingly difficult to visualize clinical and histopathologic descriptions and it is unfortunate that Unna did not publish both clinical and histologic illustrations. There are important differences in the details of the two affections but in spite of this we are disinclined to separate the two until a large number of cases have been carefully studied.

WHITEHOUSE's case we regard as being identical with ours. The comparison, of course, is clinical as no histologic study was made.

PERNET's case is probably identical with ours. There was the same location, erythema and reticulated atrophy. Pernet does not mention the presence of comedones nor horny follicular plugs. He noted telangiectasia—we did not. Unfortunately a histologic examination was not made. A clinical photograph was published but it was useless except to demonstrate the location of the eruption.

Without further details we are unable to identify HEIDINGSFELD's case as one of folliculitis erythematosus reticulatus although it may prove to be the same. Inasmuch as no biopsy was made the comparison must be on clinical grounds. Heidingsfeld accentuates the varioliform appearance of the scarring and the photographs depict a pitted scarring suggestive of smallpox. This type of scarring was not encountered in our cases, nor in the cases published by Whitehouse, Unna and

Pernet. Furthermore, there was no erythema nor were there any comedones or horny plugs in Heidingsfeld's case. Finally, the affection began in early adult or late adolescent life, while the eruption in our cases began in childhood. The atrophy in Heidingsfeld's case was apparently primary while in our cases it was secondary.

WHITFIELD'S case was quite different from ours. It presented features suggestive of the so-called acneiform nevus.

THIBIERGE'S acne verrouillante probably has nothing in common with our cases. The same may be said regarding the grouped comedones of children described by Thin and by Crocker, scar comedones, and the double comedones described by Dumesnil.

TAENZER'S *ulerythema orphryogenes* (Unna, Histopathology, p. 1086) always begins in the eyebrows and is usually limited to these regions. Occasionally it spreads to the forehead, scalp, cheeks and even the body. It begins in early life. In the milder types it is merely a persistent erythema with horny plugs in the follicular orifices, and follicular papules. The hairs are brittle, broken-off, and finally cease to grow. On the eyebrows and on the upper arms the follicular element predominates but on the forehead, cheeks and neck, the interfollicular erythema is the most conspicuous feature. The disease leads to follicular and interfollicular atrophy in the form of small, scarlike depressions.

Histologically Unna found considerable dilatation of the vessels and lymph spaces near the follicles, but very little infiltration—a few mast cells were encountered. The connective tissue showed degenerative changes and ultimately became atrophic. The hair follicles were markedly hyperkeratotic, the horny plug extending down to the lower third of the follicle. The follicles were spirally twisted. Unna speaks of horn cysts developing in the upper part of the follicle as in keratosis pilaris but he did not encounter any isolated or deep-seated horn cysts. He found little if any alteration in the elastica, slight changes in the coil glands and a practically normal epidermis.

The differential features are fairly well marked. The difference in location, the predilection for hairy regions, the presence of follicular papules and the large number of follicular plugs, occasional scaliness and pustulation, absence of reticulated atrophy and comedones, and the comparatively slight changes in the follicular histopathology serve to differentiate *ulerythema orphryogenes* from folliculitis *ulerythematosa reticulata* although, indeed, they may be allied conditions.

Keratosis pilaris, especially when erythematous and ending in atrophy, presents histologic features that to some extent resemble those found in our cases. The same may be said of dermatitis papillaris capillitii, folliculitis decalvans, *ulerythema sycosiforme*, lupus erythema-

tosus, Darier's disease, pityriasis rubra pilaris, monilethrix, favus, hyperkeratotic and acneiform nevi and, in fact, most of the chronic follicular disorders. But all of these diseases can be readily differentiated from folliculitis ulerythematosa reticulata both clinically and histologically.

TERMINOLOGY—CLASSIFICATION

It would be preferable to classify the disease in reference to its etiology, but at the present moment this is impossible. One of our patients had pulmonary tuberculosis; the other gave a positive von Pirquet test. Histologically and clinically there was nothing about the eruption suggestive of tuberculosis. Tuberculosis as a direct or indirect causative factor cannot be seriously considered at the present moment. Histologically there is evidence of a faulty development of the hair follicles and sebaceous glands, with a secondary inflammation, degeneration and atrophy due, possibly, to pressure. If the disease can be regarded in this light, then in a broad sense, we are dealing with a nevus—at least with an anomaly of development; a congenital follicular keratoderma. On the other hand it is certain that some pathologists will look on the inflammation as primary, due possibly to a toxic substance acting directly on the vessels or to bacteria in the hair follicles. In this event the follicular changes, degeneration and atrophy would be secondary to the inflammation. We are inclined to favor the first view.

There undoubtedly will be a controversy concerning a suitable title for the affection. We have selected the term folliculitis ulerythematosa reticulata because histologically especially and also clinically, the condition is a folliculitis. The word ulerythema, meaning erythema and scarring, is clinically descriptive. The word reticulation is added because this reticulated appearance apparently constitutes an essential clinical feature. To employ the term ulerythema generically (ulerythema reticulatum, for instance) would automatically group the disease with two other distinct entities, namely, ulerythema sycosiforme (lupoid sycosis) and ulerythema orphryogenes. If, for any reason, the term ulerythema is objectionable, the title can be changed to folliculitis atrophicans reticulata. The legend reticulated atrophy (atrophoderma reticulatum, employed by MacKee) is objectionable because it places the affection among the primary atrophies.

Pernet's designation, atrophoderma reticulata symmetrica faciei also groups the disease with the primary atrophies and for this reason it is objectionable. The same may be said of Heidingsfeld's title, assuming that the disease described by him belongs in the same group. In addition, the adjectives macular and varioliform do not describe the clinical features of our cases.

Inasmuch as it is possible that the disease belongs in the large group comprising the congenital keratodermata, the term *keratoderma folliculare atrophicum* might be appropriate.

Both of these cases were carefully studied, clinically and histologically, and they were identical in every respect. The cases reported by Whitehouse and by Pernet were clinically identical (we assume that these cases had comedones or follicular plugs). Unna's case was similar to ours. This evidence, especially the fact that our two cases were identical in all their clinical and histologic features, warrants the belief that we are dealing with a clinical entity. It is too soon to formulate all the essential characteristics of this entity, but while waiting for future reports based on the study of new examples of the affection, the following features may be considered as essential.

CLINICAL

1. Symmetrical distribution on the cheeks.
2. Appearance in childhood; slow evolution.
3. Erythema, which may disappear in adult life.
4. Comedones and horny follicular plugs, which may disappear in adult life.
5. Reticulated atrophy, which may become less marked in adult life.
6. Absence of papules, pustules, scaliness or seborrhea.

HISTOLOGIC

1. Acanthotic, hyperkeratotic, tortuous hair follicles.
2. Horn cysts throughout the derma, derived from the hair follicles.
3. Inflammation.
4. Degeneration and retraction of connective tissue.
5. Underdevelopment of sebaceous glands.
6. Unimportant changes in the epidermis.

TREATMENT

Local stimulating applications such as *lotio alba*, sulphur ointment, salicylic acid, etc., had no effect. Ultraviolet light accomplished nothing. Arsenic internally was useless. Both patients are now under roentgen-ray treatment, fractional doses (H $\frac{1}{8}$ B 10, skin distance, unfiltered) being applied once weekly.

We are greatly indebted to Drs. Walter J. Heimann and David L. Satenstein for many valuable suggestions.

EXPLANATION OF ILLUSTRATIONS

Fig. 1 (Case 1).—Showing the network or reticulated appearance produced by the areas of atrophy.

Fig. 2 (Case 1).—Opposite side of the face, showing the absolute symmetry of the eruption.

Fig. 3 (Case 2).—Compare with Case 1; identical clinical appearance. Note the comedones or follicular plugs and the shiny ridges.

Fig. 4 (Case 1).—Zeiss-Planar obj. 20 mm. The hair follicle F shows four budding processes. The upper ones (S) are evolving sebaceous glands. A few sebaceous gland cells are seen at A. Further on in the serial sections the sebaceous cells become more numerous. Nowhere is there any evidence of keratinization, degeneration or cyst formation. The lower budding processes C, when studied serially, show keratinization of the epithelial cells and they both become born cysts. Nowhere in the serials of this follicle is the connection between the cyst and the follicle any heavier than at B. The photograph also shows a number of large cysts in the lower part of the derma, demonstrating that the lowermost portions of the follicles are involved.

Fig. 5 (Case 2).—Zeiss-Planar obj. 20 mm. A vertical section of a very tortuous follicle; illustrating how many of the cysts are produced. Note the infiltration and dilated lymph spaces.

Fig. 6 (Case 1).—Zeiss-Planar obj. 20 mm. Showing a follicle that has been deformed by pressure from a cyst. The serial sections show that this cyst is derived from another follicle.

Fig. 7 (Case 1).—Zeiss-Planar obj. 35 mm. Shows a "double comedo" involving at least four hair follicles. The photograph shows a connection with follicles A and C. The serials show another follicle at B and at D. This comedo or horny plug was followed through ninety sections of about 6 microns each. The loss of tissue at C and D might be one explanation for the formation of the depressed areas. In another section, for instance, showing a widely dilated follicular orifice at B, there remains, between B and C a small island of skin, which from lack of nourishment and from pressure may undergo atrophy and may even disappear. It is possible that this has already happened between C and D.

Fig. 8 (Case 1).—Zeiss-Planar obj. 35 mm. Showing involvement of the upper half of hair follicle. This follicle joins another at A forming a "double comedo" with an isolated area of skin between A and B. D is a ridge and C is a depressed area. As this depressed area is followed through the serials a large "double comedo" is encountered which joins hands with the one shown in this illustration.

Fig. 9 (Case 2).—Zeiss-Planar obj. 35 mm. Shows numerous cysts and cell nests throughout the derma. The picture is not unlike that seen in some examples of multiple benign cystic epithelioma or trichoepithelioma. Most of these cell nests and cysts are shown to be part of hair follicles when the serial sections are studied, but some of them are apparently isolated because no connection can be demonstrated. Most but not all of the cell nests are found to be cysts when they are followed through the serials. It will be noted that the cutis is shallow—the fat and the coil glands are nearer the epidermis than in the normal condition. There is considerable infiltration.

Fig. 10 (Case 2).—Zeiss-Planar obj. 35 mm. Shows fairly marked infiltration, numerous cysts and cell nests and anastomosis of follicles near the epidermis.

Fig. 11 (Case 2).—Zeiss-Planar obj. 35 mm. Note high position of coil glands at A. The cyst at B apparently developed in a budding process intended for a sebaceous gland. The bridge connecting it to the follicle quickly disappears if followed in either direction through the serials.

Fig. 12 (Case 2).—Zeiss-Planar obj. 35 mm. The group of cysts at A could not be definitely connected with a hair follicle.

Fig. 13 (Case 2).—Zeiss-Planar obj. 20 mm. A cyst which is part of a "double comedo" as shown in Figs. 14, 15, 16 and 17.

Figs. 13 to 17 represent serial sections of a "double comedo." Fig. 16 shows an isolated island of skin, undermined by the "comedo."



Figure 1



Figure 2



Figure 3

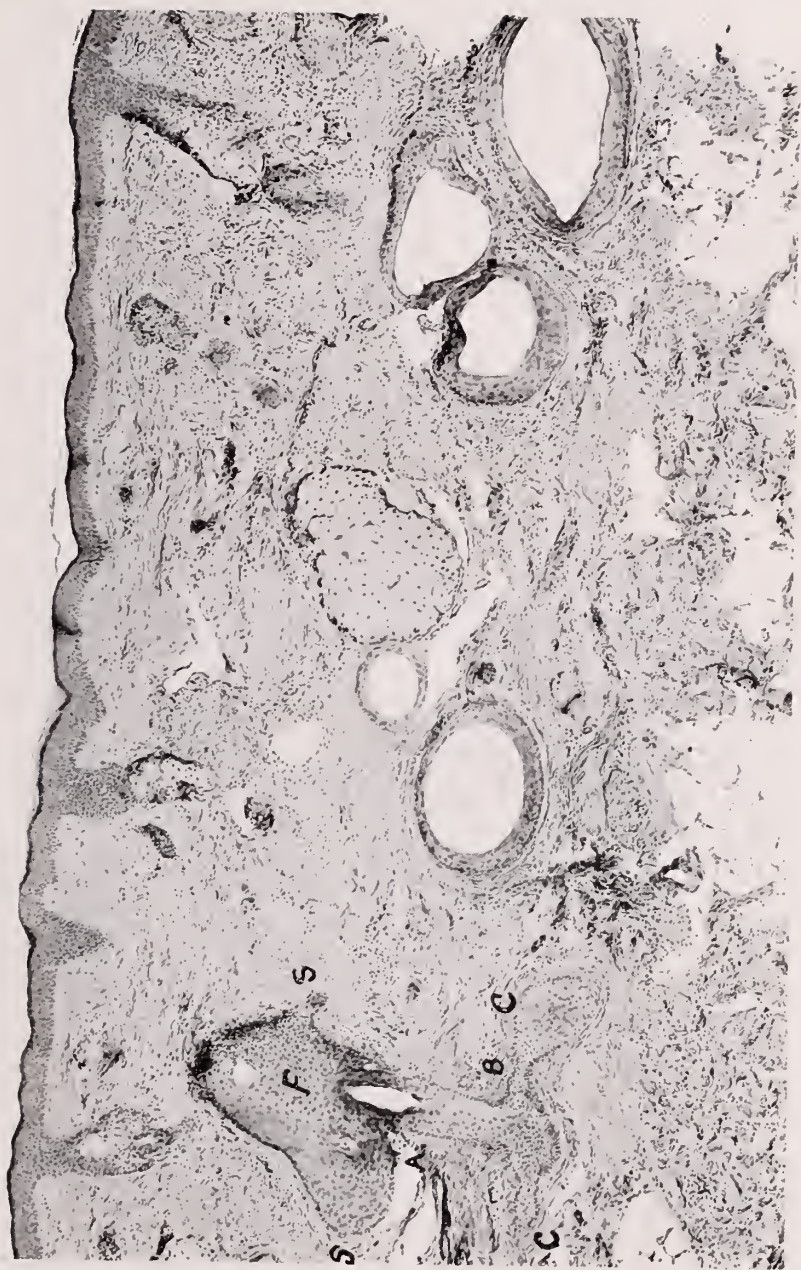


Figure 4

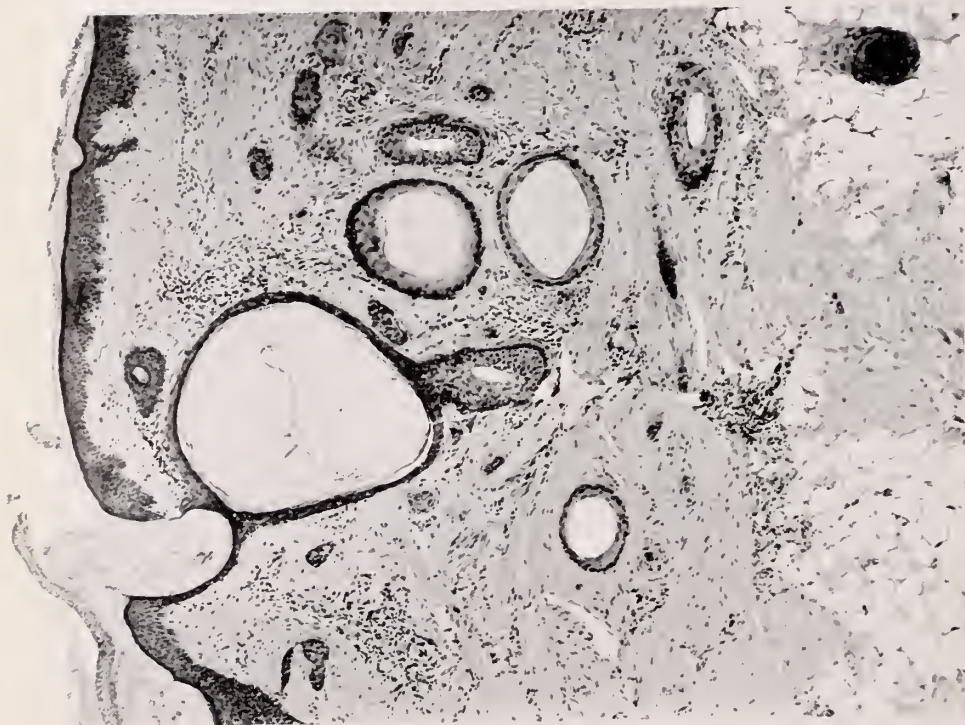


Figure 5

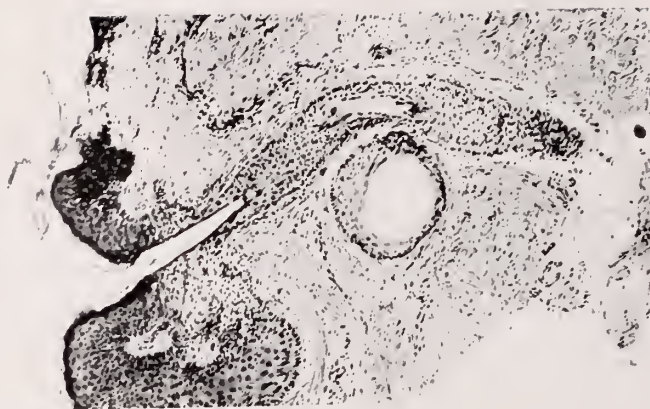


Figure 6

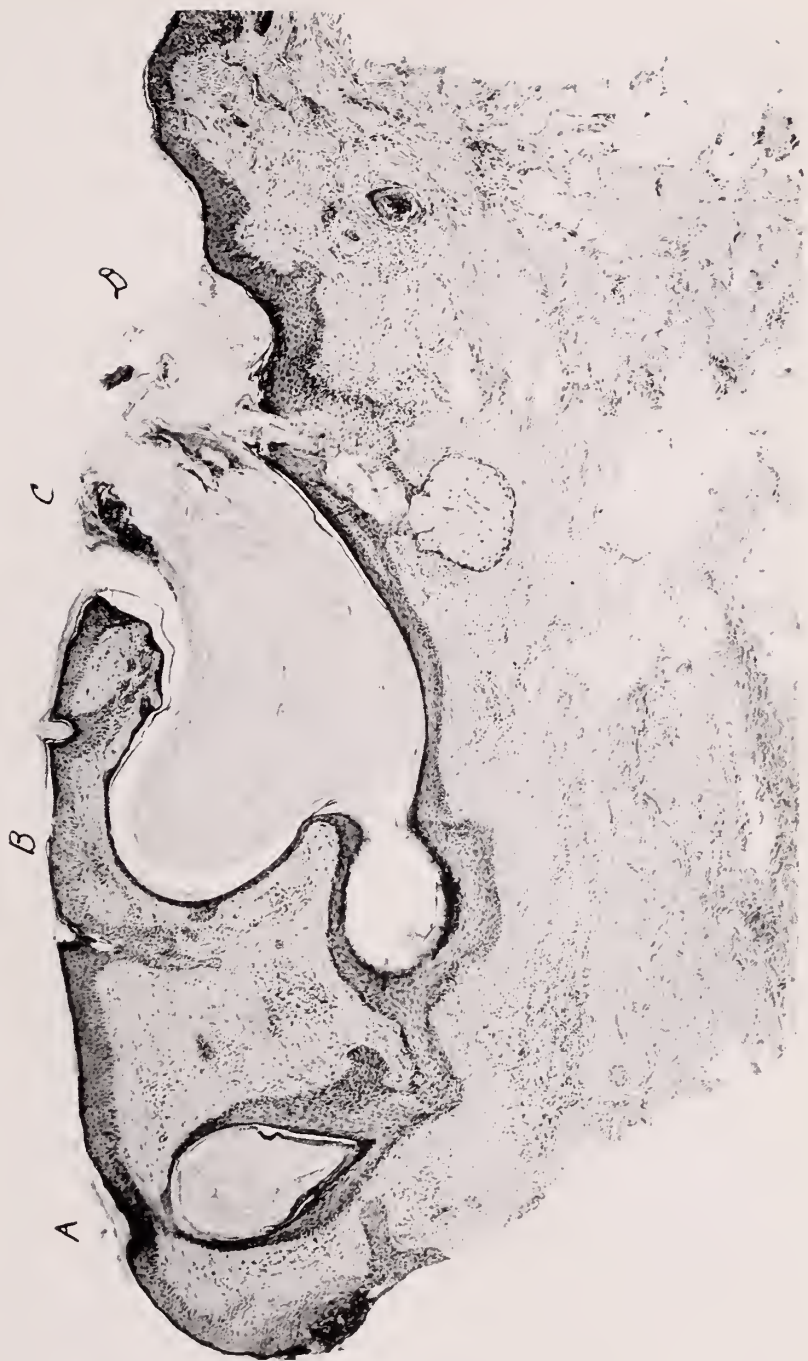


Figure 7



Figure 8

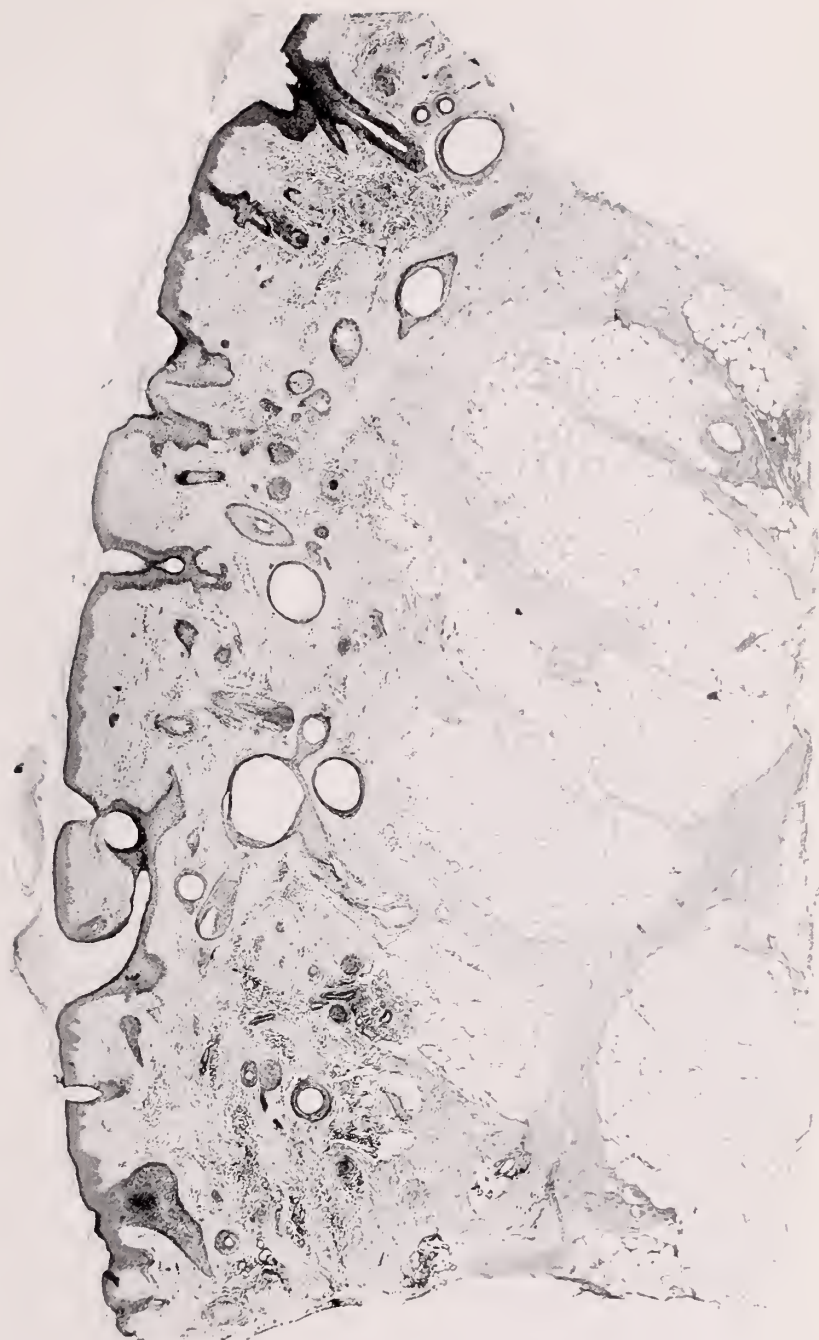


Figure 9

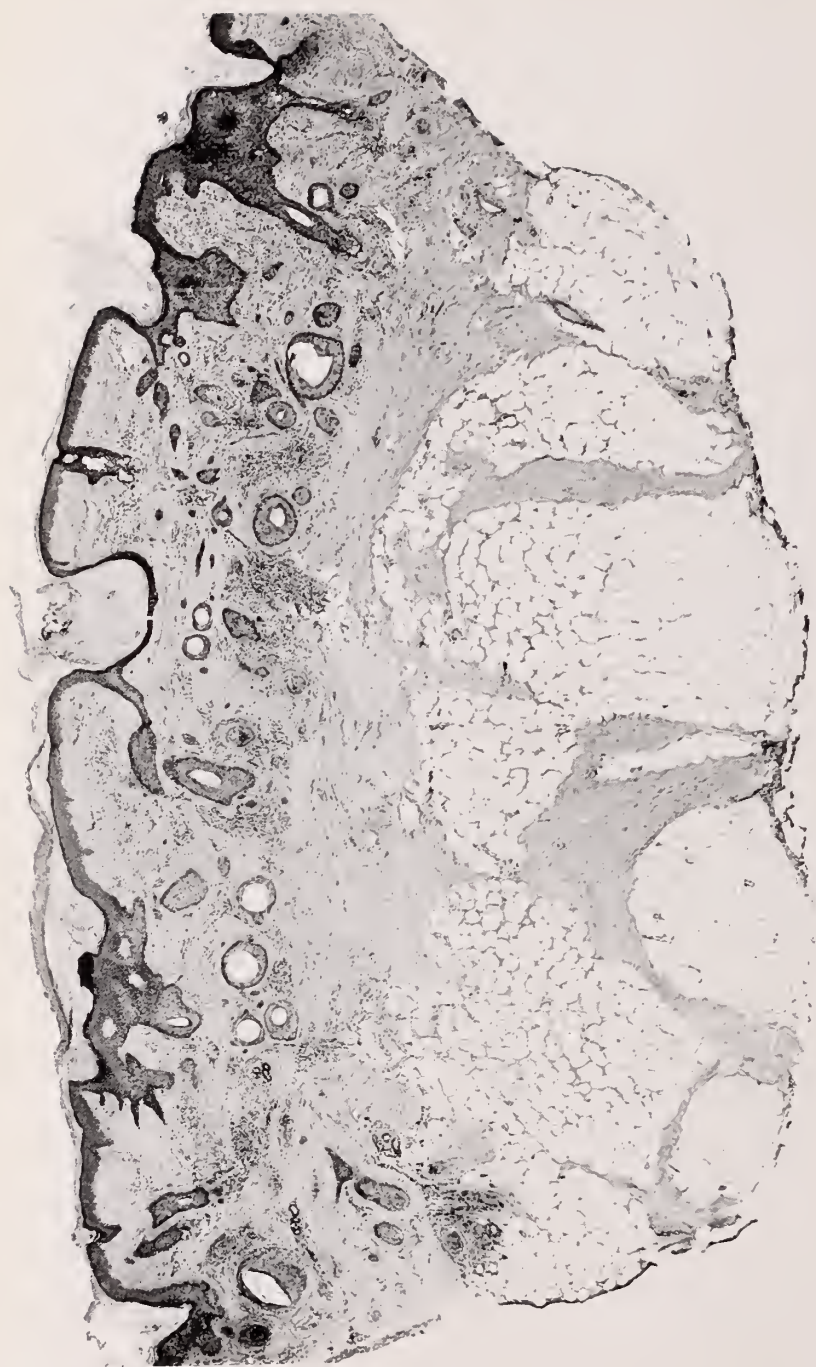


Figure 10

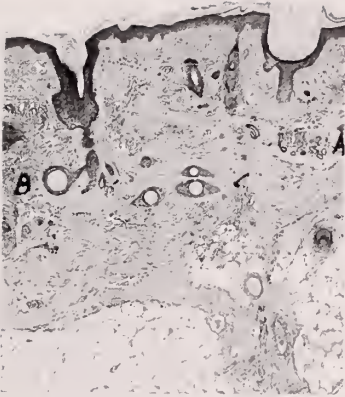


Figure 11



Figure 12

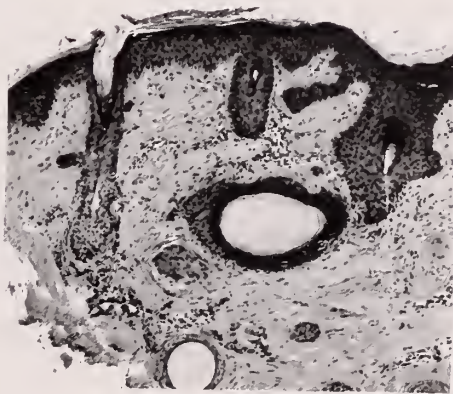


Figure 13

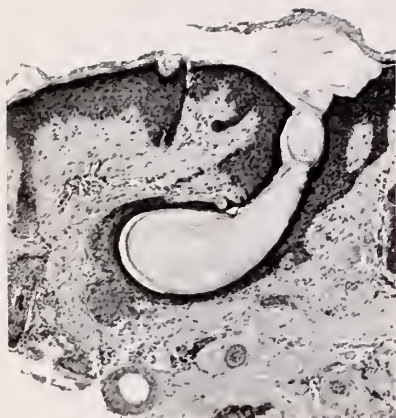


Figure 14

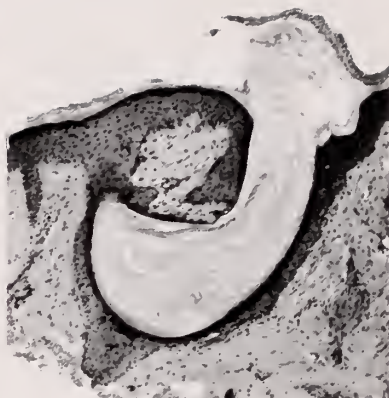


Figure 15

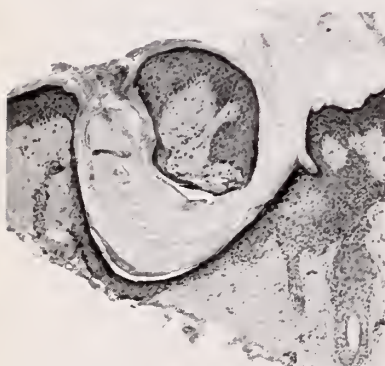


Figure 16

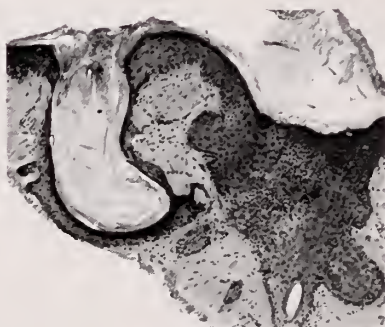


Figure 17

Clinical Report

CHEILITIS EXFOLIATIVA *

DOUGLASS W. MONTGOMERY, M.D.

SAN FRANCISCO

Cheilitis exfoliativa is a scaly condition of the lips. It is a manifestation of seborrheic dermatitis, and one of the most obstinate of them. In lighter grades it is not infrequent and may pass unnoticed by the patient. It may, however, be most tantalizing. It sometimes consists of a line of small slightly depressed facets strung along the red of the lip about a millimeter internal to the mucocutaneous border in the line of the opening of the sebaceous glands which lubricate the lips. The following report is a good example of a more than ordinarily severe case of this condition.

REPORT OF CASE

History.—A Scotch woman, a seamstress, aged 36, consulted me March 17, 1917, for an affection on the red of the upper lip which had been troubling her for the past seven years.

There was no history of tuberculosis in the family; the father died of valvular disease of the heart, the mother of pneumonia. A sister was living and well, and there were no other immediate relatives.

Examination.—A continuous, thick, translucent epithelial plate, like dried collodion, detached itself about every five days from a long, irregularly bordered, sunken surface, which occupied the middle two-thirds of the red of the upper lip. On turning the lip out, yellow miliary bodies could be seen scattered along the upper or anterior edge of this affected area. The whole upper lip was too prominent and had consequently a snoutlike look so frequently seen in infiltrations in this area. In addition to the deformity, the desquamation of the epithelial flake had become most tormenting as the patient was continually trying to loosen it with the lip and tongue. The patient also feared the condition might become malignant.

Besides the affection of the lip, the patient had long suffered from psoriasis, but not of a severe type. She had twice had alopecia areata. It is difficult to say if the psoriasis bore any relationship to the labial affection. For those who consider psoriasis and possibly alopecia areata as seborrheids, a connection would be assumed.

Constitutionally the patient was not in good condition. She had a heavily coated tongue, a tainted breath, a splashing, dilated stomach, and like most seamstresses, she suffered from constipation. She was anemic—her hemoglobin registered 76 per cent, on the Dare instrument. Her complexion was bad. She had a dirty yellow discoloration about the mouth, and her gums were pale.

TREATMENT AND RESULTS

Previous to consulting me she had had abundant and energetic treatment of the lip with caustics, roentgen rays and CO₂ snow, but without any amelioration.

March 30, 1917, a radium plaque the size of a 10-cent piece, but containing a heavy charge of radium—24.23 mg.—screened with

* Received for publication Jan. 10, 1918.

0.01 mm. aluminum, was applied for ten minutes. In a few days this caused a reaction on the mucous membrane posterior to the diseased patch—the patch itself with its thick covering was evidently very resistant.

Eight days afterward a 25 mg. radium capsule, shielded with 0.35 mm. silver and 0.75 mm. brass, was laid along the lesion over the crust for ten minutes. This in three days brought on a violent radium reaction with swelling of the lip. By the middle of May this reaction had subsided, and this was the first time in seven years that the center of the lip had stopped peeling. The center was now soft and smooth, and the infiltration had disappeared. Both ends of the lesion and a fine line along the posterior edge in the center were still desquamating a little.

June 16, 1917, a radium plaque, 11 mg. strength, screened with 0.05 mm. aluminum, was applied for twenty minutes, and again, screened with 0.10 mm. aluminum, for fifteen minutes. A similar application was made, Sept. 8, 1917. By Nov. 17, 1917, there was still a brown, dry, linear crust at the junction of the exposed red of the upper lip and the moist mucous membrane of the mouth. By Dec. 29, 1917, there were two minute, loosely adherent, linear crusts at the right extremity of the original lesion. This was cleared off by lightly wiping with trichloroacetic acid. The whole lip was soft and flexible, and the great prominence and rolled out appearance of the upper lip had disappeared.

COMMENT

I do not believe this trouble could have been cleared up with any other treatment than radium, and it required a good dose of this remedy to obtain results. Roentgen rays, the nearest approach to radium, had already been tried by a competent man without effect.

In regard to penetration, there is no doubt that the gamma rays of radium are much more powerful than roentgen rays, and probably penetrative ability was of determining influence in the present case. It will be remembered that the first radium plaque applied was a very strong one, but it had no appreciable effect on the heavily crusted part of the lesion. It affected only the thin mucous membrane behind the lesion. The next application was a 25 mg. tube laid along the crust. This, together with a remaining effect of the former plaque, gave rise to a violent reaction. After the subsidence of this reaction the lesion never returned to its old condition of dry, persistent quiescence.

One of the remarkable circumstances of the case is the normal scarless condition of the lip after the severe treatments it received with roentgen rays, CO₂ snow and radium.

Society Transactions

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meetings, Oct. 9, and Nov. 13, 1917

FRED WISE, M.D., *Chairman*

LEPROSY IN TWO BROTHERS. Presented by DR. GOTTHEIL.

The patients, Charles and Tony M., aged 13 and 15 years, respectively, showed the same disease. The father was living and well, but the mother had died of leprosy. There were three other brothers, aged 16, 17 and 21, who were apparently healthy. Charles was born in New Jersey and Tony in Italy. The exhibitor said it was an interesting point that one of the brothers had first been brought to the City Hospital, and was an inmate for some surgical condition. He said they lived as poor Italians did, in one or two small rooms in a tenement, but the other brothers seemed well. The younger one had nodules appearing on the face and both had anesthetic areas.

DISCUSSION

DR. WISE said he would like to ask Dr. Gottheil what kind of treatment he was instituting in these cases.

DR. GOTTHEIL said he was treating these cases with chaulmoogra oil by injection, although they had used it in all forms so much, that they were getting hopeless about it. He would like to know if any one had anything else to suggest.

DR. SATENSTEIN said, as the exhibitor stated that these two boys had acquired the disease in this country, he would like to know if any precautions had been taken to prevent the possible infection of other children in the district in which these boys grew up.

FAVUS. Presented by DR. GOTTHEIL.

The patient was a small boy, in whom microscopic examination showed a typical case of favus, which was very marked, the entire head being covered. Nothing was done for the boy but washing with green soap, when the exhibitor went on his vacation. When he returned he found no fungous growth on the patient's head. The condition had been left alone for two months, and he had had no other treatment except a 10 per cent. sulphur ointment. Another microscopic examination had been made and nothing could be found in either the hairs or scales.

DISCUSSION

DR. MACKEE said that he had never seen a case of spontaneous arrest or favus without atrophy and permanent alopecia. The fact that the disease had lasted several years without producing either of these features and because it had disappeared at the age of puberty, made one think very strongly of tinea tonsurans. The speaker said he was unwilling to place much importance on the microscopic findings, because it was so difficult to differentiate without the aid of cultures. The fact, however, that a diagnosis of favus had been based on typical clinical features, and by our very best men, would make it appear that we were really dealing with a very unusual result in a case of favus.

ERYTHEMA PERSTANS. Presented by DR. GOTTHEIL.

The patient was a man, aged 31, born in Madeira. The history was unimportant, except that he had a chancre five or six years previously. He came

into the hospital with a ready-made diagnosis of lepra and was sent from Bellevue Hospital, where that diagnosis had been made, and also at the German Hospital. He presented, when he came in, a peculiar eruption of large, indurated, pink masses, which were on the forehead, face, cheeks and body. His history was that three years ago he had an attack of chills and fever and then got better. The patches remained a number of months and then finally disappeared. He was in fairly good shape until the disease was discovered, when he applied for a license as cook. Then the diagnosis, with which he came to the hospital, was made. The patient was at the City Hospital for four weeks, during which time the patches had almost disappeared. Careful examination had been made of the scrapings and of the biopsy, by the pathologist at the City Hospital, and the diagnosis was absolutely not lepra, and no bacilli had been found anywhere. The speaker said he hesitated about the diagnosis of leprosy and thought it some form of erythema perstans.

DISCUSSION

DR. SATENSTEIN said there was a possibility of two conditions, sarcoid or mycosis fungoides. The clinical history, with the description of the tissue, presence of granulomatous nodules, containing giant cells, was very suggestive of sarcoid. The clinical course, with the presence of itching, might indicate mycosis fungoides. Although the enlargement of the ulnar nerves had to be taken into consideration, the speaker did not think it leprosy, and was in favor of sarcoid.

DR. MACKEE said that on a superficial clinical observation one might think of leprosy, mycosis fungoides, pityriasis in plaques and sarcoid. Leprosy could be ruled out on account of the absence of anesthesia and the absence of the lepra bacillus. Pityriasis in plaques could be excluded because the lesions were not permanent and because there was no scaliness. He would not care to rule out mycosis fungoides clinically, although there should be more pruritus. Histologically, however, the findings were in favor of sarcoid and inasmuch as the clinical appearance was not against this disease, sarcoid was the most likely diagnosis.

PAPULO-NECROTIC TUBERCULID. Presented by DR. BECHET.

The patient, a young woman, from the service of Dr. Trimble, stated that the disease began on the face, one and one-half years previously. It had been present on the arms for nine months. On the arms she presented for examination a considerable number of indurated granuloma-like lesions, some undergoing central necrosis. Several variola-like scars from former lesions were scattered among the active ones. On the face, rather symmetrically grouped, were a large number of small, bright red papules and nodules, a few of which contained necrotic centers. The eruption had improved since its inception.

DISCUSSION

DR. WISE said this was an unusual combination of what was known as acnitis of the face and typical papulonecrotic tuberculid of the arms. Both eruptions were probably caused by identical toxins circulating in the blood.

DR. MOUNT said he thought a much better term for the whole group of so-called tuberculids would be necrotic granuloma.

DR. BECHET said that he considered the eruption on the arms and face as identical. The lesions on the face were nodular, not papular, and some of them were undergoing early central softening.

CASE FOR DIAGNOSIS. Presented by DR. BECHET.

The patient, a young adult woman from the service of Dr. Trimble, stated that the disease began one year previously. In the space of that time she had four recurrent attacks, the present one beginning two months previously. The

lesions were confined entirely to the oral mucous membrane. She presented for examination a crusted, macerated and eroded condition, covering most of the lips, and inner surface of the cheeks. The lips were swollen, and covered with heaped up, drying serum. While no bullae were seen, the eruption presented all the earmarks of a resolving bullous outbreak. The condition had improved considerably since it was first observed. The Wassermann reaction was negative. The patient had two children, living and well, and three mis-carriages.

DISCUSSION

DR. ROSEN made the diagnosis of pemphigus. The patient presented a vesico-bullous eruption on the inner surfaces of both cheeks, lips and roof of the mouth. Similar lesions were present in the vagina. Cases came under his observation in which lesions similar to these were present for a year or more, without any eruption on the body, then finally ending with an acute exacerbation and a generalized pemphigoid toxemia.

DR. WISE said he agreed with the last speaker, that this was probably a case of pemphigus, but that he was not sure. In some of these cases it was practically impossible to state whether they would turn out pemphigus or bullous erythema multiforme. He said the patient would have to be watched to determine the actual state of affairs.

DR. MACKEE said he would urge in this case that the speaker search the patient for a focus of infection.

DR. BECHET said that a dentist had just completed an examination of the patient's teeth and gums, and gave it as his opinion that the condition of the teeth played no causative rôle in the eruption. As far as the diagnosis of erythema bullosum was concerned, he thought that with so many recurrent attacks she would have some lesions elsewhere, if it were this disease. He concurred in the opinion that the condition would later develop into pemphigus.

FIBROLYMPHANGIOMA OF THE RIGHT THIGH AND LABIUM MAJUS. Presented by DR. WEISS.

The patient was an adult woman. The exhibitor said that the case he presented had very much in common with Stelwagon's case, illustrated in his book (*Diseases of the Skin*, 1905, p. 628). He said there were numerous superficial deep-seated lymphatic dilatations, some of them assuming, especially the deeper seated ones, the form of cysts with fibromatous walls. Some of them were almost translucent, easily compressible. The overlying skin in some became thinned, was of a purplish or yellowish color and occasionally broke through and discharged, jetlike, a tablespoonful or more of lymphatic fluid. The speaker said the subject of lymphangioma was yet a much undecided question. It might begin with a lymphectasia, causing a stagnation in the lymph flow, producing a lymph varix or several such varices. Some of these lymphatic dilatations formed cystic growths and their walls showed fibromatous organization, and they showed an association of lymph stasis vessels and a fibromatous tumor formation, so-called fibro-lymphangioma. There could be seen also simple fibromatous, lymphangiomatous lesions on the right labium majus, which showed an elephantiasic thickening, as did also the thigh itself.

The exhibitor said that this woman underwent an operation for hypertrophy of the right labium majus. Allegedly a herniotomy was performed. Soon after the operation numerous lymphectatic lesions, in form of different sized, compressible, cystic growths, with consequent thickening of the thigh, appeared. The speaker mentioned the well known fact that after radical operation of the lymph glands of the groin, lymphangiectasis, with elephantiasic hypertrophy of the limb would set in. In this case, the elephantiasis of the right thigh and the lymphangiomata promptly followed the operation. The process was of two years' standing, and except for the inconvenience of copious, jetlike discharge

of lymphatic fluid, caused no other discomfort. However, the patient was quite anemic.

FIBROCARCINOMA OF THE BREAST. Presented by DR. PAROUNAGIAN.

The patient, Mrs. F., was 46 years of age. In November, 1916, she had a swelling of the right breast. She had consulted two prominent surgeons. One of them thought the swelling was due to a minor injury, the result of pricking of her index finger with a pin two weeks before. However, swelling persisted and after consulting several other surgeons, operation was advised and performed. The report of the pathologist was "fibrocarcinoma" or "scirrhus cancer." The operation was radical and performed in December, 1916. About five weeks after the operation, about ten or twelve exposures of the roentgen rays were given over the operated area. Shortly after that the skin broke down and a number of superficial eroded patches appeared at the site of the operation. These lesions did not yield to the various applications which were tried, namely, aristol, bismuth, etc.

It might be stated that about one year prior, she was infected with syphilis by her husband. The condition was in the chancre stage and was promptly treated with five salvarsan and several mercury injections. The patient did not manifest any lesions or symptoms and her Wassermann reactions were negative, even the one made a week before presentation.

Description of the Lesion: The small eroded patches which appeared originally, coalesced and formed one large patch covering the affected breast. The surface was covered with seropurulent exudate. The border of the patch was defined with a ribbonlike purplish erythema; the chains of lymphatics above the clavicle and cervical regions were markedly swollen and somewhat painful.

The speaker was inclined at first to think it a roentgen-ray dermatitis. He had Dr. Geyser see the case some weeks ago and his opinion was both roentgen-ray dermatitis and carcinoma. The case was presented for an opinion as well as for therapeutic suggestions.

DISCUSSION

DR. GOTTHEIL said he thought it was a radiodermatitis and carcinoma. It might be a recurrent carcinoma over the breast, but it looked like a radiodermatitic carcinoma.

DR. GEYSER said he agreed with a diagnosis of radiodermatitic carcinoma. He thought the patient was suffering more from the radiodermatitis grafted on a carcinomatous base than from the carcinoma.

DR. MACKEE said he disagreed with the previous speakers and thought it a case of cancer en cuirasse. All around the excoriated area there was a redness, but this was not an erythema, but a superficial lymphangitis. The redness could be seen in radiating bands. The skin of the entire breast was hard. The speaker thought that the excoriation, also, was a part of the lymphangitis. He saw no evidence of radiodermatitis.

DR. OULMANN said the condition seemed to him more a carcinomatous metastasis. He called attention to some small lymph nodes starting in the upper part. The superficial excoriation, on large surfaces, he had occasion to observe, even when no roentgen-ray treatment was given. He did not think that a radiodermatitis was the main factor in the condition.

DR. WISE said he would like to ask how long after the last exposure the denudation of epithelium appeared, and whether such a condition of denuded skin was commonly seen in cancer en cuirasse.

DR. MACKEE said if that were roentgen-ray dermatitis there would be deeper necrosis. If this were a radiodermatitis, it was of second degree, and a second degree burn would not last so long. He did not think surgical intervention justified in this case. It was absolutely hopeless.

TUBERCULOSIS VERRUCOSA CUTIS. Presented by DR. PAROUNAGIAN.

The patient, Miss L., aged 50, was born in the United States and a stenographer by occupation. She was presented on account of a lesion over the right eyebrow, the duration of which was two years. The family history was good; the father, aged 89, was living and the mother had died at 68 of pneumonia. There was one brother and sister, both living and in good health. As stated, the lesion was situated over the right eyebrow, the size was about 1½ inches in diameter, dark brownish, slightly elevated, and the surface was rough, rather warty in appearance. The patient was intelligent and stated that there was nothing there up to two years ago, and that the lesion was growing rapidly. She complained of no pain or itching.

DISCUSSION

DR. WALLHAUSER said he was inclined to the diagnosis of epithelioma on account of the history of slow extension and waxy, sharply defined border, presented on the inner side of the lesion.

DR. WISE said he would make a diagnosis of ordinary pigmented nevus, possibly so-called nevus sebacei. He saw no epithelioma and did not think it would be shown on microscopic examination. He considered the patient's history in this kind of condition negative.

DR. MACKEE said that the lesion was suggestive of the nevoid type of senile or seborrheic wart that was frequently seen on the back. The lesion would in time probably develop into a buttonlike type of basal cell epithelioma.

DR. BECHET said that he had not noticed a raised border. He thought it was simply a verrucous nevus. The diagnosis of malignancy had not occurred to him.

DR. SATENSTEIN said the patient had stated the lesion was rapidly growing larger. At one edge the lesion was somewhat infiltrated. The speaker said it was quite possible there was a tuberculous origin in it. He would not accept the diagnosis of simple nevus if he knew the lesion was growing and was in favor of senile keratosis with a possible beginning malignant degeneration or of some tuberculous nature.

DR. PAROUNAGIAN, in closing the discussion, stated that when he first saw the patient about two weeks previously, he considered two diagnoses. One was nevus, the other epithelioma. He excluded the first on account of absence of any lesion there prior to two years. Epithelioma, because there was no pain, no pearly borders, and no induration. Dr. Satenstein kindly consented to make a biopsy and report the result at the next meeting.*

ERYTHEMA INDURATUM, BAZIN. Presented by DR. PAROUNAGIAN.

The patient, a girl, aged 15, had an affection on her legs, the duration of which had been since May, 1917. She had a number of nodules on the lower extremities, bluish in color, and one lesion was ulcerated. The lesions were more on the calf of the leg, some of them reddish purplish patches, and a number of them deeply embedded. There was no itching but they were slightly painful. They first began on the left leg and those on the right one followed. She had scars of scrofulous glands on the left side of the neck. The patient's parents were both dead, the father having died of pneumonia and the mother was sick ten years before her death. The case was presented as one of erythema induratum, Bazin.

CARCINOMATOUS DEGENERATION OF GUMMA. Presented by DR. OULMANN.

The patient, J. L., aged 53, had syphilis and about twenty years ago developed a gumma on the right os parietale of 50-cent piece size, extending to the periosteum. When he came to the clinic, about one and one-half years ago,

* Microscopic Examination: Seborrheic keratosis; no malignancy.

the Wassermann test was + + + +. Under antisyphilitic treatment the gumma started to heal, but was forming a tumor which seemed to consist of granulation tissue. This tumor was removed by carbon dioxid snow, but returned and increased in size, extending a good deal over the skin and showing a plum shape. The tumor was not very hard, discharged a thin pus from a few small openings, which did not show any blastomycetes, was slightly painful on pressure and prevented the patient from lying on this side. The lower margin of the tumor extended into the normal scalp, where a small, infiltrated reddish area existed. The Wassermann was strongly positive but antisyphilitic treatment did not influence the growth. A roentgenogram showed a distinct depression on the bone. The speaker regarded the case as a malign tumor developing on a gumma. The tumor would be excised during the week and the bone thoroughly scraped.

RAYNAUD'S DISEASE TREATED BY DIATHERMIA. Presented by
DR. GEYSER.

The patient, Mr. L., a letter carrier by occupation, noticed, early in February, 1917, that his left hand was beginning to feel numb and cold, at times becoming anemic and blue. He devoted some little time consulting medical aid, was treated for rheumatism at several clinics and hospitals, also for blood poisoning and finally went to the Vanderbilt Clinic. There the diagnosis of Raynaud's disease was made. They treated him with internal medication and hot packs, etc., but the condition became worse. He lost weight and could not work. The pulse was entirely gone. He came under the speaker's care June 19, 1917. June 28, the pain had subsided and the condition improved very rapidly. Since that time the patient has been improving very steadily and for the past month had been back on his work as letter carrier. No massage had been used, nothing but diathermia. All the nails were completely returned, excepting the tip of one finger, which finally dropped off. All the rest were being healed. There was a piece of bone sticking out which the exhibitor said would probably have to be amputated. The patient could move his arm up in the air, which he said before treatment was practically impossible on account of pain.

DISCUSSION

DR. WISE said he had seen the case four or five months previously, and wished to state that the improvement was remarkable.

KERATOSIS FOLLICULARIS. Presented by DR. BECHET.

The patient, an adult man, from the service of Dr. Trimble, and a member of a family similarly affected, and previously reported by Dr. Trimble, had been suffering from the disease for many years. He stated that his mother, sister, brother, and two of his sister's children were similarly affected. The disease had grown worse in the past few years, and was now very extensive. The patient presented on the face, confluent, large patches of papillomatous lesions of a grayish color. The hands, arms, and upper part of the trunk were greatly involved, but the feet presented the greatest evidence of the activity of the disease. The toes were covered with elongated, horny masses, almost half an inch in height. The soles were also covered with the horny masses, which were of a yellowish black color. There was an enormous, armorlike thickening of the palms and soles. The condition of the soles was severe enough to make walking extremely painful.

TUBERCULOSIS CUTIS. Presented by DR. WISE.

The patient was a boy, aged 10 years, the duration of whose tuberculosis cutis lesions had been seven years. He presented a lesion on the right foot, about 4 inches long, on the outer side and below the ankle, extending toward the big toe. A depressed scar extended from the forward end of the patch toward the base of the toe, and apparently there were the remains of a sinus

leading to the tendon of the big toe. A swollen discoid patch was located on the calf of the leg.

ERYTHEMA MULTIFORME. Presented by DR. OCHS.

The patient was a small girl, who had previously been presented before the Society as a case of erythema multiforme perstans. The exhibitor said he had been seeing this child for three years, during which time she would have repeated attacks. He showed the case again to see whether that diagnosis would be confirmed, or if a diagnosis of prurigo or dermatitis herpetiformis might be made. The lesions cleared up at times in the summer considerably, but in the fall of the year the condition would again break out, going on through the winter. There were no mouth or vaginal lesions. The lesion on the arm, as well as the back, looked very much like erythema multiforme. The exhibitor said that Dr. Gottheil saw the case twice. She had had absolutely no cutaneous lesions for the past two years, until those shown appeared. The child had a secondary vaccinia on the buttocks.

DISCUSSION

DR. WISE said he thought this case one of prurigo mitis, with coincident urticaria.

DR. SATENSTEIN said the condition probably began as an urticaria, and the child had been scratching the lesions, and they were developing into prurigo. He did not see any evidence of erythema multiforme whatsoever.

DR. MOUNT said this was usually the history of prurigo, beginning on the buttocks and developing later on the arms and legs. He thought the case one of prurigo mitis.

DR. PAROUNAGIAN agreed with the diagnosis of erythema multiforme. As to the suggestion of prurigo, he said that he saw a great many cases of prurigo at the Gouverneur Clinic and his conception of prurigo was, that these patients had a generalized eruption consisting of small papules resembling scabies lesions, accompanied with urticarial wheals, the face and forehead being involved and the lesions never entirely disappearing; the flexors were usually free and there was marked adenopathy, and not as a rule symmetric distribution.

DR. OCHS said that last winter the child was practically free from lesions and also the summer before. The last time she was presented a clinical diagnosis of dermatitis herpetiformis had been made. He thought the lesions on the buttock and those on the left arm were erythema multiforme. The existing condition was followed by the vaccinia.

DR. PISKO said he considered this case dermatitis herpetiformis. There were vesicular lesions in groups; it was itchy and recurrent, but he could not discern the pigmentation in the artificial light.

BROMID ERUPTION. Presented by DR. GILMOUR.

The patient, S. G., was a school girl, aged 9 years, born in the United States. When 2 weeks old the child had a convulsion, and at the age of 7 began to have epileptic seizures, as many as five a day. She had taken medicine almost continuously since the beginning of the epilepsy, salty medicine, also medicine known to be bromids. The rash started on the back and inner side of the left leg three months previously.

October 13, 1917: There were fungating, papillomatous masses, covering an area 2 inches in diameter. The patient left the clinic and was seen that day after having been treated by a physician with a thick paste. The lesions had become flatter than when first seen.

DISCUSSION

DR. GOTTHEIL said, considering that the lesions were only on one leg, and that they were limited above by an absolutely sharp line, and that while the

child had been taking bromids for many years she had only had the eruption for a very short time, he regarded the lesions as traumatic.

DR. GILMOUR said it looked like a condylomatous affair, and was more fungating when he had seen it first.

DR. PAROUNAGIAN said he thought it was a bromoderma. He could not find any vesicles. In his opinion they were solid tumors.

ERYTHEMA MULTIFORME OF THE NODULAR TYPE. Presented by DR. SATENSTEIN.

The patient was an adult woman. Three years ago she had been seen by Drs. Weiss and Gottheil, as well as the speaker, for a similar eruption present at that time. There was a question about the diagnosis between erythema multiforme, lupus erythematosus and syphilis. The Wassermann reaction was negative. The eruption had then lasted six to eight weeks and was accompanied by rheumatic pains. Since then she had no attacks. The present condition had begun three weeks ago. She was presented at the Academy of Medicine, where there was a question as to whether it was lupus erythematosus or erythema multiforme. When presented here the lesions were all retreating, and the patient complained of pains in her joints, saying that they "crippled her."

DISCUSSION

DR. PISKO said he had seen the case the Wednesday previous, and the retrogression was so marked, that he did not think anything like this could happen to any kind of lupus erythematosus in less than a week. It showed very much the outlines of lupus erythematosus, but that was about all. If anything, lupus erythematosus of this size would show marked symptoms of progress.

DR. WISE said he thought the case was probably erythema multiforme, still, he had not made up his mind definitely whether it was that. He thought it might turn out to be lupus erythematosus; the literature contained many references to lupus erythematosus, which at a time might be indistinguishable from erythema multiforme. He said he was not so sure about this yet, that he held back a diagnosis until there had been a chance to watch the patient for the next two or three weeks.

SCLERODERMA. Presented by DR. GILMOUR.

The patient, E. M., was a woman, aged 40, married, housewife by occupation, and born in Russia. Fourteen years previously her fingers began to feel tight, and gradually became extended, till five years ago the backs of the hands were involved. The patient thought the condition began after a felon on the finger. The face had a fixed appearance and there was difficulty in talking and swallowing. There was a restricted motion of the fingers and ulcers on the tips of the fingers of both hands. The patient lost her right thumb nail, also the nail of her right fifth finger. They had again grown and the patient attributed the return to tablets of pituitary gland, 2 grains of the fresh gland substance (Burroughs and Wellcome's preparation) taken three times a day. The Wasserman test had been repeatedly negative. The patient had a high glucose tolerance.

DISCUSSION

DR. OULMANN said he presented the case two years ago. He had obtained a roentgenogram, and it showed very distinct shortening of the extremity. He saw the patient six months previously at the dispensary, and she said she was getting from bad to worse, and he did not see any improvement from that time up to the present. He would like to see her on the treatment a little longer, but she certainly had not improved up till now.

HYPERTRICHOSIS. Presented by DR. GILMOUR.

The patient, M. S., was a housewife, married, aged 30, and was born in Italy. The family history was negative. The condition here described was accidentally

discovered while giving an intramuscular injection of mercury salicylate for the treatment of syphilis. The patient was born with a growth of soft hair, a few inches long, situated over the small of the back. This had gradually increased in length and become coarser, so that now it was like the hair of the human head.

This hair was growing from a perfectly normal skin. There was no pigmentation or sign of nevus. About every twelve months, for the past eight or ten years, the patient had cut off the hair. The hair now present was 8 inches long and had been growing for one year. This growth had never been much longer than at the time of presentation. The space covered by the hair had a diameter of 4 or 5 inches. A roentgenogram of the lower end of the spine was negative.

DISCUSSION

DR. GOTTHEIL said that there was a distinct hiatus in the spinous processes of the vertebrae under the hairy growth; he regarded the case as one of those instances of spina bifida due to an inclusion cyst.

PURPURA ANNULARIS TELANGIECTODES. Presented by DR. WEISS.

The patient was an adult woman, who showed lesions of purpura annularis telangiectodes of the lower anterior surfaces of both legs.

DISCUSSION

DR. MACKEE said that he could not accept this case as one of purpura annularis telangiectodes. Eruptions like this were common in edematous legs, varicose legs and in the condition known as Schamberg's progressive pigmentation. In Majocchi's purpura there were no discernible contributory factors such as already mentioned. In Dr. Weiss' case there was pitting on pressure in both legs and in all probability a careful examination would reveal deep varicose veins. In any event the three stages and the separate and recurrent attacks as seen in purpura annularis were wanting. The fact that the histology was somewhat similar was not surprising, nor was it confusing, as marked vascular alterations with consequent changes in the other tissues were bound to occur in these chronic cases and the histology of all the various types might be very similar during certain stages of development. The cardinal histologic alteration in Majocchi's purpura was a panarteritis with destruction of the vessel through the process of hyaline degeneration, and this was wanting in Dr. Weiss' case. At least, it was not a conspicuous feature.

DR. GOTTHEIL said localized vascular dilatations were extremely common in chronic dermatitis cases, either with or without ulceration. In fact, he was convinced that they were usually passed over as part of the ordinary symptomatology of the case. He doubted whether the condition merited separate classification or enumeration.

DR. WISE said it might interest the members to know that this trouble had been described by Dr. Klotz about twenty-five years previously, under the name of dermatitis hemostatica. The speaker said Dr. Satenstein had called attention to the fact that dermatitis was not applicable, because there was no dermatitis, but clinically it was a fairly good name. Every minor and essential symptom seen in this case was described very fully. If this case was one of purpura annularis telangiectodes, then Majocchi's disease must be very common, because they saw cases like this very frequently in leg ulcer clinics.

DR. PISKO said he would like to have the term dermatitis hemostatica eliminated for good and ever, and just venostasis used, as that was all that was necessary, so there should be no confusion.

DR. SATENSTEIN said he might add to the previous speakers' statements, that at the time of the biopsy he found no edema. The patient had a biopsy in

February or March and the tissue, clinically, was apparently normal. The microscopic picture showed no edema, vessel changes only.

DR. WEISS said, in reference to this case, that in a paper soon to appear he pleaded for a broader view of this dermatosis. We could not in reason expect a perfect conformity of symptoms to exist in any described lesion type which would in every feature tally with the description given by the first observer. A symptom complex was not immutable; it may show variations in its component parts. The speaker said he agreed that this was a borderline case, showing only one (the hemorrhagic pigmentary stage) of the classic symptoms described by Majocchi and later on extensively by MacKee. The appearance of the lesions on both legs and their symmetry also added to the validity of the diagnosis. The lesions were coming, going and overlapping in their different stages, showing yellowish pigmentation of the affected parts.

PLANTAR ECZEMA. Presented by DR. GILMOUR.

The patient, A. McL., housewife, married, aged 35, was born in the United States, and had two healthy children, aged 12 and 8 years. There were no miscarriages. Oct. 8, 1916, she had her ovary and appendix removed, also an operation for laceration of the womb. The present condition began four years previously, both feet being equally affected and gradually reaching the present stage of development, which had caused a thickening and cracking of the soles of both feet. There had been more or less itching since the trouble began. For the last few periods, just before the flow, the feet had been worse, there had been cracking and bleeding, this condition becoming better when the flow was established. When the trouble began there was a rash between the fingers that lasted for one month. A few years ago there was a rash on the knees and elbows, but no definite history of its character was obtained. The eruption had not at any time been watery. Sweating had been absent. The Wassermann reaction was negative. For three weeks in September, because the heels were infected, the patient had to keep off her feet. She now had been walking for about one month.

DISCUSSION

DR. PISKO said he considered the diagnosis to be psoriasis.

DR. ROSEN agreed with the diagnosis of plantar psoriasis made by Dr. Pisko. On questioning the patient she stated that typical psoriatic lesions had been present on the elbows and knees when the plantar lesions made their appearance. Under treatment these lesions disappeared after about six to seven months. Psoriasis of the palms and soles was usually obstinate to all forms of treatment.

DR. PISKO said the patient had stated that at one time she also had lesions on the scalp.

DR. MACKEE said he agreed with Drs. Rosen and Pisko, that this was most likely a case of psoriasis, but he always hesitated in these cases to rule out syphilis absolutely, in spite of the fact that it was bilateral, and did not look particularly like syphilis.

DR. PAROUNAGIAN said he thought the diagnosis of psoriasis was the best that could be made in this case. He considered syphilis, as Dr. MacKee had suggested, but ruled it out on account of the negative Wassermann reaction, as it was an untreated case. He was inclined to the diagnosis of psoriasis and would suggest the application of an ointment containing salicylic acid, tar and chrysarobin as a diagnostic procedure.

DR. MOUNT said he had this brought home to him very forcefully. He had seen one case, which was most distinctively a case of eczema, which did not yield, and then a Wassermann reaction was made and found to be strongly positive. There was a prompt disappearance under antisyphilitic medication.

DR. OCHS said in spite of the fact that the Wassermann reaction was negative, he could not at all consider the lesions as psoriasis. He was sure the patient would show a positive Wassermann reaction.

CASE FOR DIAGNOSIS. Presented by DR. PAROUNAGIAN.

The patient was a woman, aged 26, born in Russia. She presented a skin condition which was more or less generalized, the duration of which had been one week. She had been pregnant for six months and had one child 5 years of age. The lesions were follicular in type, extending from the chin line down to her feet; there were red patches and a peculiar pigmentation; the flexors were more affected and the itching was very excessive. She had not had anything like this with her previous pregnancy.

DISCUSSION

DR. MACKEE said he thought it was an acute follicular dermatitis, probably of toxic origin.

SYPHILIS. Presented by DR. WISE.

The patient, W. W., man, aged 35, was a native of the United States, and had come from Dr. Fordyce's clinic. He presented a series of peculiar looking lesions, all of which were syphilitic. On the chin he had what looked like a frambesiform syphilid, but it had not the true strawberry or raspberry appearance. It looked more like a sycosis, so much so that several hairs were extracted but no tinea were found. There were some small papular lesions on each side of the nose, and on the forehead there were several distinctly circinate lesions, such as were usually seen on the chin, but even those were more like atrophic lichen planus than syphilis. There were scars on the penis, the remains of chancres, which the patient had had one year previously.

SECONDARY FOLLICULITIS AND LICHEN PLANUS. Presented by DR. WEISS.

The patient was a male adult, who exhibited signs of secondary folliculitis of both legs and thighs. On looking closer there were found lesions on the thighs and legs, which showed lichen planus papules. The patient acquired a secondary infection from scratching, caused by the intensive itching of the lichen process.

DISCUSSION

DR. BECHET considered all of the eruption a lichen planus.

DR. WEISS said the intensive scratch marks caused by the lichen process simulated folliculitis, which was the interesting point.

SYPHILIS. Presented by DR. WEISS.

The patient was a man, aged 45, who had had gonorrhea fifteen years previously, with a paraphimosis and perforation of the prepuce. He remembered having had multiple boils, also loss of hair. The present status showed a well developed man, who had an intensive papulo-pustular eruption, especially over the trunk and scalp. The forehead showed acneform, necrotic-like lesions, which would heal leaving depressed scars. At the angle of the right jaw there was a broken down lesion, the size of a pigeon egg, with an unhealthy looking base and steep border. The Wassermann reactions was + + + +. The exhibitor tentatively showed the case as one of tertiary lesion of the jaw, a late secondary pustular syphilid of the skin, within the confines of a secondary roseola eruption. The patient had had some short treatment fifteen years previously, when he had taken pills.

DISCUSSION

DR. MACKEE said he thought that it was a case of chancre with a macular exanthem.

DR. PAROUNAGIAN said he agreed with the diagnosis of the cheek lesion, the chancre and early eruption of roseola.

DR. WISE said consideration must be taken of the chancre fifteen years previously. Either the patient did not have a chancre, but chancroid, or he had a second chancre. He supposed Dr. Weiss had brought the case on account of the unusual history, taken in connection with the lesions which the patient exhibited.

DR. PISKO said in former years this condition was labeled the varioliform type of secondary syphilis, and thought it was good to retain this designation.

DR. WEISS said, as Dr. Wise had remarked, the history of the case must be taken into account. The patient's paraphimosis, which he had fifteen years previously, might or might not have harbored a preputial chancre. In this event the assumption described before may have some validity. Six or eight weeks before being shown, a small lesion had appeared at the angle of the jaw, which had developed to the size seen that evening. As the patient had also a vesiculopustular syphilid and a macular eruption, taking the history into account, the speaker thought it might be a tertiary gumma with early and late secondary skin symptoms. Now, taking in consideration the development of the case it was much easier to assume that the broken down ulceration over the angle of the right jaw was a primary chancre, and that the vesiculo-pustular eruption was the sign of a precocious appearance of a late and severe secondary type.

DR. MOUNT said the lesions were entirely different in the late macular eruption and they were very much larger and more of the ring form. He said he had seen a case of macular annular syphilis twelve to fourteen years after the primary infection.

DR. GOTTHEIL said relapsing early syphiloderms were not uncommon. The trouble was that the same observer did not usually see them, since ambulant cases in our charities were notorious wanderers. In a hospital service, where the patients were kept for prolonged periods, these relapses occurred so often that they excited little comment.

DIATHERMIA IN RAYNAUD'S DISEASE. Presented by DR. GEYSER.

The patient, a man, aged 21, had been in the United States about five or six years, and was born in Russia. At the time of landing, or shortly thereafter, he noticed that his fingers looked white and bluish. The exhibitor simply wanted to show the case because on the day of presentation he had given the first treatment with diathermia, and he said he would again show the patient later on. The man had not been able to sleep on account of the pain at night, which was very severe. This time was the first he had ever had freedom from pain, immediately following the one treatment with diathermia.

BLASTOMYCOSIS. Presented by DR. WISE.

The patient, T. K., was a laborer, aged 55, a native of Ireland, who had come to the Vanderbilt Clinic two days previously. He came for dermatitis of the legs, for pain and inflammation, and had not mentioned anything about his bandaged hand. In other words, he did not care so much about the hand as he did about the inflammation of the legs. The skin of the latter presented a rather intense dermatitis with edema and swelling, resembling an exacerbation of a chronic eczema. The dorsum of the right thumb presented an oval patch of skin, about 1 inch in length, by half an inch in width; the surface was verrucous and slightly purulent, exhibiting a typical eruption of blastomycosis. The diagnosis was confirmed by the microscope.

CHICAGO DERMATOLOGICAL SOCIETY

*Regular Meeting, Nov. 20, 1917*WILLIAM A. PUSEY, M.D., *President*

LICHEN PLANUS HYPERTROPHICUS. Presented by DR. PARDEE.

The patient was a man, aged 51, a merchant by occupation. The previous history was negative with regard to the present condition. Four years ago a lesion appeared on the right shoulder. When first noticed this was about the size of a pea, but gradually it increased and at the time of the biopsy had reached the size of a quarter, with a small, pea-sized new lesion just beyond its edge.

In character these lesions were that of firm tumors, deep red to reddish brown in color, which color did not disappear on pressure. Numerous dilated blood vessels were apparent, especially at the edges which were sharply defined from the normal skin. In the center of the oldest lesion there was a semi-atrophic patch about 2 cm. in diameter. Within the past few months similar lesions had appeared on the arms, below the elbows and the legs below the knees. These were nearly uniform in size and presented similar characteristics except that they were distinctly rough to the touch, suggesting lichen planus hypertrophicus, although the tumors were typical of this disease.

DISCUSSION

DR. SCHAFFNER thought it looked like a neoplasm of some sort, but did not consider it an epithelioma, and it was not like any case that he had ever seen of multiple sarcoma. The sections, however, were not typical of multiple hemorrhagic sarcoma in that the hemorrhagic feature was not pronounced.

DR. ORMSBY at first thought of hypertrophic lichen planus, but did not believe the histology was that of this disease. The histology pointed more toward sarcoma.

DR. HEIDINGSFELD said the lesions on the arms appeared to him like those seen in the scaling eruptions of the skin. The lesion itself impressed him as a sarcoma.

DR. HARRIS believed it was a hypertrophic lichen planus. If the section had been thinner so that the cells could have been seen better, he thought they would show the characteristic arrangement of lichen planus. He thought the lesion was too hard for a sarcoma.

DR. FOERSTER thought it was a sarcoma; in several places involution had occurred, which was not unusual. He could see no resemblance to lichen planus.

DR. MCEWEN did not regard it as a hypertrophic lichen planus.

DR. LIEBERTHAL thought from the examination of the specimen that multiple hemorrhagic sarcoma was out of the question and the character of the cells did not typify lichen planus. Another point that should be considered was that the lesion, which was removed from the back and from which the section was made, may have been a different process from what was found on the extremities. He further called attention to the small keratitic lesions on the right elbow, and thought that further study of these and the larger plaques might disclose more points in favor of the diagnosis of lichen.

DR. FISCHKIN believed there were two conditions present. He was struck with the phenomenon Dr. Lieberthal mentioned—the distinct keratosis follicularis, and the tumors could not be associated with that. The section spoke against lichen, for the infiltration was too deep.

DR. STILLIANS said he had tried to make a diagnosis of lichen planus because the small outlying lesions on the legs were in lines, but they were follicular and acuminate and the tumors were too soft for lichen hypertrophicus.

DR. PUSEY thought the case was not sarcoma.

DERMATITIS HERPETIFORMIS. Presented by DR. STILLIANS.

The patient was a negress, aged 24, who presented lesions which appeared as little blisters, first on the back, then about the waist in patches and groups, with slight itching. She had been in the hospital three months previously with what was thought to be an erythema multiforme of the mouth; she also had blisters on the vulva at that time. The Wassermann reaction was negative. The patient was receiving normal horse serum and atropin sulphate. At the time of admission into the hospital she presented many groups of vesicles, other areas entirely denuded of horny epidermis, and others in which the lesions had receded, leaving marked pigmentations. In the axillae and groins were vegetations exactly like those in the other negro case, still in the hospital. The stomatitis was still so severe as to make feeding difficult, although the skin lesions had improved somewhat.

DISCUSSION

DR. HARRIS thought the interesting feature was the fact that the patient was in the hospital a few months previously with what looked like an erythema multiforme of the mouth, and that the present condition was a dermatitis herpetiformis.

DR. PUSEY thought the clinical picture looked more like pemphigus and that this case and that of a colored man shown later were essentially the same thing, with slightly different manifestations. The man had itching and the woman had burning sensations. The woman reminded him of a case seen several years ago which showed nothing but stomatitis at first, but when seen again two weeks later had a frank outbreak of pemphigus. He believed the prognosis for the woman was very much worse than for the man and that she would probably die shortly.

DR. McEWEN believed this case and that of the colored man referred to in the discussion were very similar, and it seemed to him that in both instances the course was not that of a classical dermatitis herpetiformis by any means. He thought it might have to be accepted that pemphigus vegetans was not always immediately fatal.

DR. HEIDINGSFELD considered the two cases to be pemphigus and very similar, and cited a case seen by him which began as a pemphigus vulgaris with typical mouth lesions, and before death ensued all the cutaneous lesions were transformed into a pemphigus circinatus.

DR. HARRIS though the colored woman had the same type of lesions as the man with dermatitis herpetiformis vegetans.

DR. STILLIANS said that when the patient first came in she had distinctly angular vesicles, which with the grouping spoke for dermatitis herpetiformis.

DR. FISCHKIN believed the itching and grouping were not enough for the diagnosis of pemphigus and that one could never judge as to the fatal termination in pemphigus vegetans. He had seen patients die with very few small bullae and cited the case of a patient with decided, but scant, eruption of pemphigus vulgaris who was taken to the hospital after three weeks and died in three days. The toxemia was very severe but the cutaneous manifestation was very slight.

DR. ORMSBY thought the important fact illustrated in this case was that while pemphigus vegetans was usually fatal, it was well to know that dermatitis herpetiformis with associated vegetating lesions could simulate it to a marked degree.

(To be continued)

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THE SO-CALLED POROKERATOSIS (MIBELLI) WITH SPECIAL REFERENCE TO ITS HISTOPATHOLOGY *

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Some of the keratotic diseases attack with predilection the hair follicles while others occur chiefly at the sites of the mouths of sweat-ducts. Mibelli considered his "porokeratosis" as a keratosis belonging to the latter category. He described the affection in 1893, and, basing his study on several cases and on consideration of the literature, he concluded that the disease was a new type of keratosis.

According to this writer, the disease exhibits, histologically as well as clinically, an entirely characteristic keratotic condition occurring at the sites of the orifices of sweat-ducts.

Respighi, who reported the same dermatosis, regarded it also as a hitherto undescribed affection, characterized by centrifugal extension of the keratotic patches.

Since that time a number of communications have appeared dealing with the subject: Joseph, Reisner, Heller, Harttung, Kullack, Baum, Basch, Brocq and Pautrier, Galloway, Hutchins, Gilchrist, Wende, Himmel, Mibelli, Respighi, Ducrey and Respighi, Lombardo, Scaduto, Pasini, Giani, etc., have reported cases. More than half of these were published by Italian dermatologists. In Japan, cases have been reported by Dohi and Ohno, Ito, Sei, Sakurane, Hirooka, Sekiba, Maki, Umezu, etc.

In regard to the histologic examination about thirty cases have been recorded; among these are those of Mibelli, Respighi, Ducrey and Respighi, Reisner, Joseph, Gilchrist, Wende, Basch, Kullack, Truffi, Himmel, Brocq and Pautrier, Scaduto, Dohi and Ohno, Ito, Sei, Maki, etc. Though some of the writers did not submit the histologic details and the others did not examine the microscopic specimens very care-

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* From the clinic of Dr. Matsuura.

fully, the great majority of them (excepting Respighi, Gilchrist and others) were inclined to support Mibelli's view.

That the keratotic change in the disease is exclusively connected with the sweat structures is very doubtful. In fact, in the porokeratotic patches there are to be seen, not infrequently, minute horny plugs marking the sites of the follicles, and Respighi, Gilchrist, etc., noticed also evidences of follicular hyperkeratosis. It is rather strange that Mibelli neglected a careful examination of the follicular structures and did not discuss them more in detail. Obviously there is a great deficiency in our knowledge of the histopathology of the disease. Careful histologic investigations of the primary lesions are therefore particularly desirable to gain a better insight into the nature of the condition.

REPORT OF CASES

Although porokeratosis is a comparatively rare disease, we have had the good fortune to observe thirteen cases all of which were examined histologically.

The clinical findings of these cases are herewith briefly tabulated.

TABLE 1.—SUMMARY OF CLINICAL FINDINGS IN ELEVEN CASES OF POROKERATOSIS

Case No.	Age and Sex	Localization of the Eruption and Other Remarks
1*	19 years Male	Duration of the disease nearly from 12 to 13 years, first appearing on the sole of the foot. Refer to Fig. 1, a, b, and Fig. 3, a, b, where the chief localization of the lesions are illustrated. In addition to these, several were seen on the face (right side) and interseapular region (right). Chiefly "porokeratosis systematisatus"
2	28 years Male	Existed nearly 25 years. Rapid progress since 10 years. Note Fig. 2, a, b, and Fig. 4. Several on lower extremity (right). Partly systematic arrangement
3	23 years Male	Appeared soon after birth. Systematic arrangement on costal region; further on cheek, forehead, eyelid, nose, neck, costal, gluteal and anal region
4	40 years Female	Since 2 years. Disseminated all over the cutaneous surface there are numerous lesions. Palms and soles free
7	21 years Male	Existed for years. About 10 efflorescences, aggregated, on the inner surface of right thigh
8	20 years Male	Since from 3 to 4 years. Interseapular region
9	40 years Male	Dorsum of the foot (right)
10	29 years Male	More than 20 years. Disseminated on face, chest, back and extremities. Heredity existed
11†	46 years Male	Duration 20 years. A typical plaque on the forehead. Both follicular (comedolike) and poral (scarcely visible) keratoses were most beautifully demonstrated in this case
12	22 years Male	Duration more than 3 years. Scattered on forehead, eyelid, flexure of the elbow (left), arm (right), abdomen and legs. At times moderate itching. Spontaneous healing was seen at places
13	26 years Male	Since 7 years. Scattered on face, scalp, axillae, back and legs, a dozen in toto. The eruption exhibited marked inflammatory (chronic) change, brownish-red, sharply marginated, bearing certain resemblance to eczema marginatum. Larger plaques showed seborrheic scalliness. At places relative central healing. There was itching

* Cases 1 to 10: Refer to No. 35 in literature.

† Case 11: Refer to No. 36 in literature.

TABLE 3. HISTOLOGIC FINDING IN CASES OF POROKERATOSIS

Case No.	Pieces		Histologic Finding of the Comedo-like Plugs	Changes of		Remarks
	Excised	No.		Follicles	Sweat Ducts	
1	From the plaque on leg, exhibiting 2 comedo-like horny plugs	15	The two plugs were keratotic follicles	Highly keratotic, resulting in dilatation of follicles. Disappearance of sebaceous glands; atrophy of hair-bulb and papillae	Obliteration and disappearance of peripheral course of the ducts. At places slight infiltration around the glands	
	From the plaque on leg, exhibiting 2 comedo-like horny plugs	16	The two plugs were keratotic follicles	Same changes as in No. 15, but less marked	Obliteration and disappearance of peripheral course of the ducts. At places slight infiltration around the glands	
	From the border of the plaque on the leg	17	Keratotic follicle.....	Remarkable keratosis; dilatation of follicle (Fig. 11)	At places disappearance of sweat duct, showing dilatation of the remaining portion	
	From the border showing 4 horny pits on the wall	18	Keratotic follicles.....	Same changes as in No. 17. Formation of cystic space beneath the plug	At places disappearance of sweat duct, showing dilatation of the remaining portion	Figs. 12 and 13
	Thigh.....	19 and 20	.....	Slight keratotic change	At places disappearance of sweat duct, showing dilatation of the remaining portion	
	Inner margin of the foot	21	.....	.....	Sweat orifices entirely disappeared in the plaque excepting the border. Hydrocystomatic condition	
	From the border of the plaque on the sole	22 and 23	.....	.....	Sweat orifices entirely disappeared in the plaque excepting the border. Hydrocystomatic condition	Figs. 15 and 16
7	Relatively young efflorescence showing a horny pit	4	Keratotic follicle.....	Remarkable keratosis, showing cystic space under the plug	Evidently keratotic. Ducts and glands intact	Fig. 9
8	.....	..	Keratotic follicle.....	Highly keratotic	Highly keratotic on the border. Obliteration and dilatation of the ducts. Infiltration around the glands	
9	.....	..	.....	.....	At places obliteration and dilatation. Infiltration around the glands	
10	Leg.....	..	Keratotic follicle.....	Highly keratotic	Slightly affected	
11	From the hairy border of the forehead	1, 2, 3 and 4	Keratotic follicles.....	Marked keratosis	Marked keratosis	Fig. 11. The follicular and poral keratosis appeared in these preparations most beautifully in two distinct types. See literature (No. 36)
13	Axillae (1.5 cm. in size)	1	.....	Keratotic change	Slight keratotic, chiefly being normal	Marked infiltration in papillary and subpapillary layer and around follicles, in association with pigment deposition. Dilatation of papillary vessels
	Postauricular region (1 cm.)	4	Keratotic follicle.....	Marked keratosis at the openings	Slightly keratotic or free	Marked infiltration in papillary and subpapillary layer and around follicles, in association with pigment deposition. Dilatation of papillary vessels
	Lip (2 cm. in size).....	5	Keratotic follicles.....	Marked keratosis at the openings	Slightly keratotic or free.....	Same as in Nos. 1 and 4 (less pronounced)
	Shoulder (1 cm. in size)	6 and 7	Keratotic follicles.....	Marked keratosis at the openings	Slightly keratotic or free.....	Same as in Nos. 1, 4 and 6. Dilatation of small vessels most evident in No. 6

The diagnosis of the disease is not difficult save in its very early stage of development. It is not my present purpose to describe the clinical features in detail; therefore, I will confine myself to pointing out a few interesting features observed in my cases.

ETIOLOGY

Regarding the etiology and nature of the disease there exist various opinions and hypotheses (Tommasoli, Majocchi, Mibelli, Respighi, Wende, Gilchrist, etc.). Cases are on record, in which many members of a family have suffered from the disease (Respighi, Ducrey, Gilchrist, Mibelli, Lombardo, Pasini, etc.); the last named physician met with twenty-six cases in a family. Not all cases, however, give a hereditary history. The disease is more common in males than in females. The eruption may begin in childhood but not infrequently develops in adults of middle or advanced life.

The eruption does not usually exhibit an inflammatory change of the skin, but occasionally there is a marked reddening, suggesting that it is of a chronic inflammatory nature. Case 13 is an example of this. The eruption showed marked inflammatory reddening in association with itching and scaliness.

Subjective symptoms are usually absent; but, in Cases 12 and 13, there was itching. The horny growth of Case 1 situated on the sole (Fig. 3, a; literature No. 35 or 37), was so painful on pressure, that it gave rise to great discomfort.

Truffi, Baum, etc., described cases in which a systematic distribution of the eruption was observed (porokeratosis systematisatus). Examples of this are exceedingly rare. Cases 1, 2 and 3 may be classified under this category. Particularly, the localization of the patches on the upper and lower extremities of Case 1 is most interesting (compare literature No. 34).

That the lesion bears a certain resemblance to linear dermatoses or to lichen, in various ways (distribution of the patches, histologic features, heredity, etc.) is of interest in connection with this dermatosis.

HISTOLOGY

The histologic research was intended particularly to study the primary efflorescences with special reference to their relation to the skin glands, and further the "horny plugs" observed on the porokeratotic plaques. Needless to say that for the present purpose examinations in serial sections were necessary.

(1) PRIMARY EFFLORESCENCES.—The histologic investigation of the primary lesion has been hitherto rather neglected. There have appeared only several communications dealing with the subject, namely, those of Respighi, Mibelli, Ducrey and Respighi, Gilchrist, Himmel, etc. To my knowledge, an exact definition of the primary efflorescence

of porokeratosis does not exist. By the designation "primary efflorescence," is meant here, minute eruptions which are less than from 1 to 2 mm. in diameter, with or without a typical "wall." According to the clinical features, they may be classified as follows:

1. Very young ones, brownish, with or without a trace of roughness; no formation of wall (Refer to Table 2. Case 1, Nos. 1—5, 8—10).
2. Those with a trace of hyperkeratosis and a wall (Case 1, Nos. 7, 11, 12; Case 2, 1—5; Case 4, 1, 2, 5, 6; Case 5).
3. Those with a typical wall on the peripheral border (Case 7, No. 3).
4. The efflorescence itself is either a horny plug or horny depression (Case 7, Nos. 1, 3).
5. Minute patches showing a horny plug on them (Case 6; Case 7, No. 2, etc.).

For the sake of brevity, the histologic findings obtained from the examination of more than thirty primary efflorescences will be summarized:

(a) The hyperkeratosis occurring in a primary efflorescence is so slight that it is, at times, not recognizable at all. Similarly, the acanthosis is slight. There is, usually, no morphologic change of the epithelial cells, but occasionally a slight edema exists in the rete in association with the infiltration in the papillary layer.

(b) One of the most remarkable features is the minute parakeratotic thickening of the epithelium (which takes the eosin stain well) at the peripheral border of the efflorescence. This corresponds to the horny ridge or wall surrounding the plaque, continuously or discontinuously. Such a wall may be partly or entirely absent in the youngest stage of the lesion.

(c) The mouths of the sweat-ducts and of the follicles are implicated in the hyperkeratotic process. Both may be affected nearly to a same extent or either of these may be predominantly altered. The follicle may occupy the center of the lesion. Where the sweat-pores are keratotic and thickened, the follicular openings, if they exist, are, as a rule, likewise changed. The parakeratotic thickened wall surrounding the plaque may occur at the sites of sweat-ducts, causing dilatation of their mouths. The sweat glands show morphologically no abnormality.

If hair-follicles are implicated in the process, it results occasionally in their dilatation. The comedolike horny plug or prominence existing in the efflorescence is nothing but an overgrowth of the horny layer at the mouth of the follicle.

(d) In the underlying papillary layers, there is more or less marked cell infiltration which is at times very remarkable, particularly along the peripheral border and around the follicles. The blood vessels may

occasionally be dilated. A highly characteristic feature, commonly associated with the infiltration, is the presence of pigment.

Occasionally, there occurs a disappearance of the elastic fibers in the papillary layer and particularly in the infiltration.

(*e*) The hyperkeratosis at the mouths of the sweat-ducts was not pronounced in my cases. There was no finding which leads us to believe that the disease commences with a keratotic eruption occupying the sites of the sweat-ducts. However, cases were observed in which the cornified hair-follicle occupied the center of the efflorescence.

Whether the change in the epithelium or in the cutis is primary, is a question still open for discussion. That there frequently exists marked infiltration in the papillary layer in spite of very slight hyperkeratosis, is in favor of the view that the disease has its origin in the cutis.

(2) RELATIVELY OLD PATCHES.—For the sake of convenience, the histologic findings in the center and the peripheral border of the porokeratotic plaque will be separately described. The changes of the sweat-glands and follicles as well as their relation to the horny plugs existing in the keratotic area were carefully investigated.

(*a*) *The Center*.—The smaller patches exhibit changes similar to those seen in primary efflorescences. The plaque, increasing slowly in size by peripheral extension, is surrounded by a sharply defined elevated border (so-called "wall"). The patches show at times marked hyperkeratosis with acanthosis, though this is not pronounced in the vast majority of our cases.

In the papillary layer and around the keratotic follicles there is, as a rule, more or less marked round-cell infiltration with occasionally dilated capillaries. The infiltration consists chiefly of mononuclear round cells mixed with plasma and mast cells. In exceptional instances, a certain number of giant cells can be found. The infiltration is at times very pronounced, bearing a certain resemblance to a lymph follicle (Case 4, No. 3; Case 7, No. 2). In addition, an increase in the number of wandering cells in the rete is occasionally associated.

In the relatively early stage, the elastic fibers do not usually show any pronounced change save in the infiltration, where they are not tingeable. In occasional cases the finer nets of elastic fibers in the papillary layer are not well demonstrable. In the old plaques of Case 11, removed from the forehead, there was observed so-called colloid degeneration occurring in the subpapillary layer which may not be due to the porokeratotic change (Refer to No. 36 in literature).

The central area of an old plaque exhibits, not infrequently, signs of atrophy. There is a diminution in the thickness of the epithelium (Fig. 13). An atrophy and flattening of the papilla takes place.

TABLE 2.—HISTOLOGIC CHARACTERISTICS OBSERVED IN A SERIES OF CASES OF POROKERATOSIS

Case No.	Pieces		Changes in Epidermis and Corium							Remarks
	Removed From	No.	Hyperkeratosis	Acanthosis	Formation of Wall	Follicular Keratosis	Poral Keratosis	Cell Infiltration	Deposition of Pigment	
1	Pectoral region	1	—(±)	—	—	±	—	+	++	*Certain number of wandering cells present Fig. 6 Fig. 5
	Pectoral region	2	+	—	—	+	+	++	++	
	Pectoral region	3	+	—*	—	+	+	+	+	
	Pectoral region	4	+	±	—	..	+	+	+	
	Pectoral region	5	+	—	—	+	+	+	+	
	Pectoral region	6	++	—	+	++	+	+	++	
	Pectoral region	7	+	—	+	++	+	+	++	
	Pectoral region	8	—	—	—	—	—	+	++	
	Pectoral region	9	—	—	—	—	—	+	++	
	Pectoral region	10	—	—	—	—	—	+	++	
	Arm	11	+	±	+	+	+	+	++	
	Arm	12	+	—	+	..	+	++	++	
	Arm	13	..	—	+	+++	+	++	++	
	Arm	14	..	—	—	—	—	++	++	
2	Forearm	1	+	—†	+	±	±	+++	+	†Wandering cells
	Forearm	2	+	..	—	±	..	+++	+	
	Flexure of elbow	3	+	—	+	..	±	+	+	
	Forearm	4	+	—	+	..	±	+	+	
	Forearm	5	±	—	±	++	+	+	+	
3	+	+	+	+++	+	+	++	
4	Back	1	+	—	±	—	—	+	+	‡Edema and wandering cells Fig. 7
	Back	2	+	—	+	++	±±	++	++	
	Back	3	+	—‡	+	++	±	+++	+++	
	Back	4	++	—	+	+	+	++	++	
	Back	5	+	±	±	—	±	++	++	
	Back	6	+	±	±±	±	±	++	++	
	Back	7	+	—	+	++	±	++	++	
	Back	8	+	—	+	..	±	++	++	
	Back	9	+	—	+	..	+	++	++	
5	—	±	+++	+	+	++	
6	—	—	+++	—	++	++	
7	Thigh	1	±	+++	—	+	—	Fig. 8
	Thigh	2	+	±	++	++	+	+++	+	
	Thigh	3	+	—	++	++	+	+	—	
13	Eyelid	2	+	+	+	+++	++	
12	Abdomen	1§	++	+	++	++	—	++	++	An increase of epithelial pigment is seen
	Leg	2§	++	++	++	+++	+	++	++	
13	Scalp	3§	+	++	++	+	+	+	+	

Explanation of Symbols: — = not noticeable; + = slightly noticeable; ++ = evident; +++ = very remarkable.

§ These eruptions, being from 2.5 to 3 mm. in size, are, for the sake of convenience, appended here.

There is an atrophy of the elastic fibers in the papillary layer. The infiltration is usually not evident in this stage.

(b) *The Peripheral Border*.—Examined in vertical section, the peripheral border exhibits, in well pronounced cases, conical prominences which chiefly consist of an overgrowth of the corneous layer showing usually a parakeratotic condition. The underlying epithelium becomes depressed allowing, in its utmost degree, the rete to atrophy, occasionally in association with its proliferation, which is commonly marked around the keratotic wall. Consequently, an irregularity in arrangement of the rete is to be seen.

The cell infiltration and pigment accumulation in the papillae, which are frequently elongated, are, as a rule, more intense at the border than in the center of the plaques. The furrow or sulcus, existing on the crest of the horny wall, may occur as a result of a partial detachment of the hyperkeratotic and parakeratotic projection.

(c) *Pathologic Changes of the sweat-glands and hair-follicles in the porokeratotic plaques*.

(1) *Hair-Follicles*: At the orifices of the hair-follicles there occurs more or less marked hyperkeratotic or parakeratotic thickening of the corneous layer, not infrequently in form of conical plugs or depressions, marking the sites of the follicles, whereby the orifices of the latter become funnellike or cylindrically dilated (Figs. 9, 11, and 12). Beneath the horny plug, obstructing the mouth of the follicle, there appears at times a cystic space in the follicle.

Sebaceous gland, hair-bulb and papilla are unaffected in the early stage, though later undergo atrophic and destructive changes. Enlargement of the sebaceous glands was not observed.

In the neighborhood of the keratotic follicle there is usually more or less marked round-cell infiltration, accompanied by a variable amount of pigmentation.

(2) *Sweat-Glands*: The sweat-ducts are, not infrequently, implicated in the keratotic process.

In the earliest stages of development, the sweat-glands in the plaque do not exhibit any sign of pathologic changes. Later, obstruction or disappearance of the terminal course of the ducts takes place, frequently followed by cystic dilatation of the remaining portion of the duct (Figs. 12 and 16), resulting in the atrophy or hypertrophy of the epithelial coat. The glomerulus may be unaffected for a long period. Indeed, it may apparently be intact even if the canalization of the duct is completely obstructed; the dilatation takes place after an entire disappearance of the peripheral duct.

Several writers described somewhat similar cystic dilatation of the sweat-duct occurring in certain pathologic conditions (Unna, Joseph,

Lebet, Pinkus, etc., and Shidachi). Whether the hydrocystomatic condition is to be regarded as a result of the mechanical obstruction or of the inflammation occurring at the peripheral course of the sweat-duct, is, in the opinion of authors, an open question. We do not possess suitable preparations to enable us to answer this interesting question. Both probabilities may be considered in the case of porokeratosis.

(3) Follicles and Sweat-Ducts at the Peripheral Border: The relation of the horny overgrowth or plug at the border, to the orifices of the skin glands, was carefully studied in serial sections. Indeed, at times it was seen that the horny accumulation occurs at the sites of the openings of the sweat-ducts or follicles taking part in the formation of the horny wall. This finding is not surprising, because the porokeratotic plaque tends to show a steady centrifugal extension. This also applies to the plaques on the sole in Case 1.

(4) Comedolike Horny Plugs: In the typical porokeratotic plaque, at its center as well as at the border, there are frequently minute comedolike horny plugs or depressions, which are regarded by Mibelli, Respighi, etc., as cornified sweat pores. Careful examinations show, however, that the minute comedolike horny plugs are nothing more than keratotic follicular orifices. This finding is completely in harmony with clinical observation. At times, particularly in late stages of development, there is difficulty in finding, histologically, the lanugo hair in the keratotic follicle, which is likewise atrophic; occasionally, the plug may not contain any trace of lanugo as can be easily understood from Figure 12.

To avoid error in distinguishing the cornified orifice of the follicle from that of the sweat-duct, examinations in serial sections are absolutely necessary. To my knowledge, horny plugs occurring at the mouths of the sweat-ducts are usually less pronounced or scarcely visible on account of their small size, though this may not apply to the sweat-ducts of the palms (compare No. 37 in literature).

Case 11 shows the keratotic condition at the orifices of the follicles and sweat-ducts very distinctly, appearing in two entirely distinguishable formations; the larger comedolike horny plug being follicular while the smaller exhibit the poral hyperkeratosis.

(3) INFILTRATION AND PIGMENT.—An inflammatory change in the superficial layer of the corium occurring in the porokeratotic plaque has been mentioned by some writers, namely, Mibelli, Respighi, Joseph, Kullack, Gilchrist, Wende, Himmel, etc.

In the vast majority of my cases well marked cell infiltration is to be noticed in the papillary layer, around the keratotic follicles and the border of the plaque. As a rule, more or less pronounced infiltration is to be seen in the primary efflorescences regardless of the degree of

the keratotic change. In the infiltration, mast cells are present but not evidently increased in number. A certain number of giant cells are found in one case (Case 7, No. 4).

Histologists differ in their views as to whether the primary disturbance is in the epidermis or in the corium. Mibelli, Reisner, etc., considered the inflammatory changes occurring in the upper layer of the corium as of secondary nature. The fact, however, that the almost constant presence of cell infiltration, which is well pronounced even in a slightly keratotic primary efflorescence, is in favor of the view that the disease is inflammatory in nature. At times, the inflammatory feature is so striking that it bears a certain resemblance to *eczema marginatum*, as was seen in Case 13.

In addition to the infiltration there is usually more or less marked deposition of pigment in the primary lesion as well as in the developed plaque. An exact description dealing with the pigmentation does not exist in the literature.

RÉSUMÉ

Mibelli considered the most characteristic finding of the disease to be the keratotic change at the sites of the sweat-orifices. He maintained that the disease has its beginning, in all probability, in the sweat-ducts, implicating by its peripheral extension particularly the orifices of the ducts. Though contrary views soon appeared in the publications of Respighi, etc., Mibelli still insisted on his opinion.

The views of Mibelli, who explained the pathology of this hitherto undescribed dermatosis so clearly, have been accepted by many dermatologists and quoted in the vast majority of the textbooks. That the dermatosis frequently exhibits a marked keratosis at the sites of the sweat orifices is true; and why should we doubt his findings concerning the sweat-ducts, which were subsequently proved by other writers to be correct? But, at the same time, he wanted to carry out a more careful examination regarding the changes of the follicular apparatus.

The present research throws some light on the histopathology of the disease. Histologic examination was carried out systematically in quite a number of the efflorescences in the early and late stages of development. It was seen that the keratotic change of the follicle is not rare at all. In fact, it is well marked in the majority of cases. The follicular hyperkeratosis, however, is not a constant occurrence in the disease. The same is the case in *poral keratosis*, which may also be a feature of some other dermatoses.

At any rate we are not justified to assume that the follicles are implicated in the process to a less extent than the sweat-ducts. The openings of the follicles as well as the sweat-ducts are similarly affected in their keratotic manifestations by the steady expansion of

the plaque, whereby the change occurs practically in the same manner (hyperkeratosis and parakeratosis in the follicular openings, with formation of horny plugs resulting in the obstruction and dilatation of the follicles; hyperkeratosis and parakeratosis at the sites of the sweat-duct orifices followed by obstruction, later dilatation). The other parts of the epithelial surface are likewise implicated in the keratotic change.

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EXPLANATION OF THE FIGURES

Fig. 1, a and b.—Showing the localization of the porokeratotic plaques on the chest, upper and lower extremities of Case 1.

Fig. 2, a and b.—Showing the localization of the plaques of Case 2.

Fig. 3, a and b.—Showing the porokeratotic plaques on the lower extremity. Case 1.

Fig. 4.—Showing the plaques on the back and arm. Case 2.

Figs. 5 to 16.—F, follicular keratosis; s, poral keratosis; w, so-called "wall"; l, cell infiltration; p, pigment; T, sebaceous gland; L, lanugo hair; C, cystic space; H, dilated sweat-duct.

Fig. 5 (Case 1, No. 8).—Note the infiltration in the subpapillary layer, with pigment deposition, epidermis being nearly normal.

Fig. 6 (Case 1, No. 7).—Slight keratosis at the mouth of follicle and sweat-duct. Trace of wall will be seen.

Fig. 7 (Case 4, No. 3).—Around the keratotic follicle and in the superficial layer of corium, evident infiltration in association with pigmentation.

Fig. 8 (Case 7, No. 1).—In this efflorescence the keratotic follicles play an important rôle.

Fig. 9 (Case 7, No. 4).—Beneath the plug there is a cystic space.

Fig. 10 (Case 13, No. 6).—Note the infiltration near the peripheral wall. Also, perivascular infiltration in the subpapillary layer. Hyperkeratosis and acanthosis will be seen in the plaque.

Fig. 11 (Case 1, No. 17).—Showing highly keratotic follicles. Perifollicular infiltration.

Fig. 12 (Case 1, No. 18).—The mouth of the follicle is cylindrically dilated by horny plug. Lanugo becomes pressed.

Fig. 13 (Case 1, No. 18).—Atrophy of the rete will be noticed. Clinically there was atrophic change of the skin.

Fig. 14 (Case 11, No. 4).—Showing keratotic follicles and sweatpores.

Fig. 15 (Case 1, No. 23).—Vertical section of the furrow at the peripheral wall of the plaque on the sole. Marked hyperkeratosis and irregularity of papillae. Perivascular and diffuse infiltration in the papillary and subpapillary layer.

Fig. 16 (Case 1, No. 22).—Vertical section of the wall of the plaque on the sole. The crest of the wall exhibited a continuous furrow (compare literature No. 37, picture of the sole of this patient). wR, a part of the wall; wB, the furrow along the wall.



Figure 1a



Figure 1b

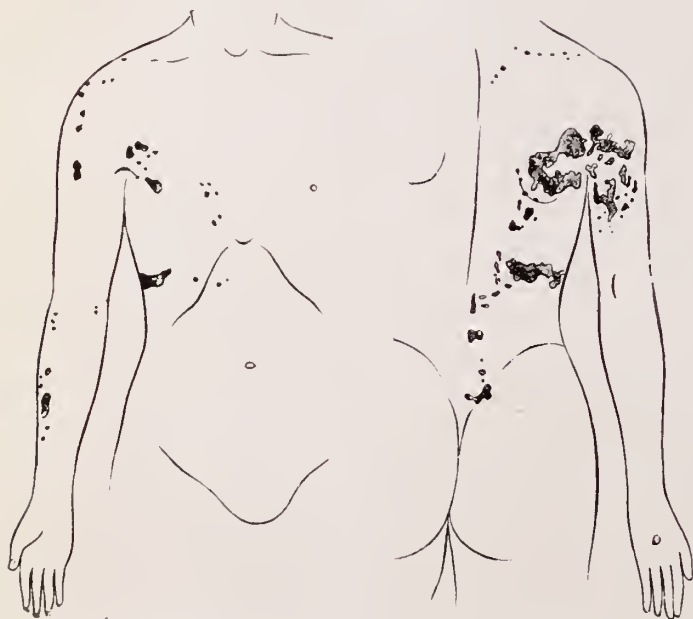


Figure 2a



Figure 2b



Figure 3a



Figure 3b



Figure 4

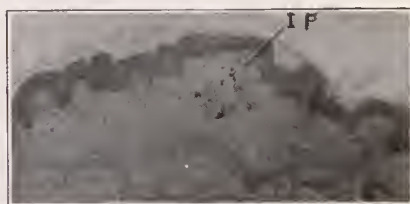


Figure 5



Figure 9

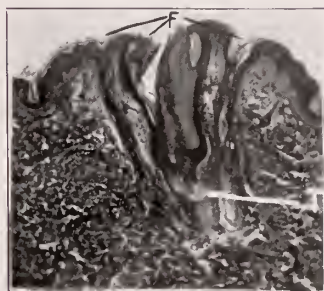


Figure 8

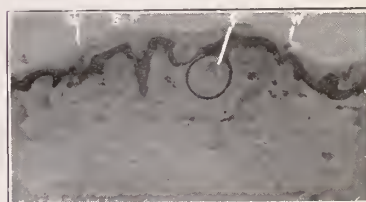


Figure 6

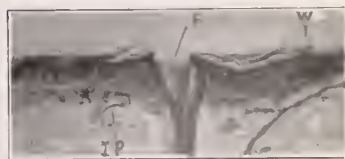


Figure 7

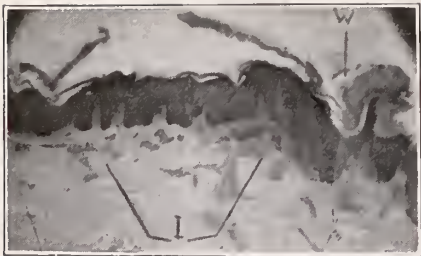


Figure 10

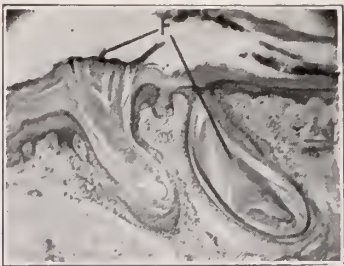


Figure 11



Figure 12

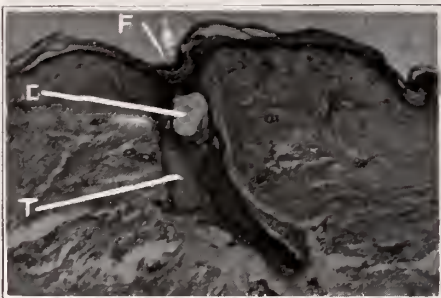


Figure 13

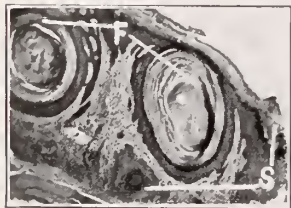


Figure 14

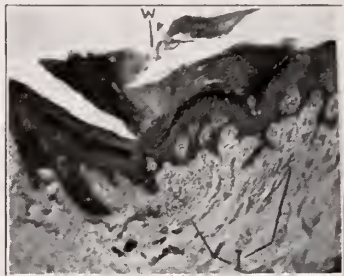


Figure 15



Figure 16

Clinical Report

ANNULAR MACULAR SYPHILIS

REPORT OF A CASE OCCURRING AS AN EARLY SECONDARY
MANIFESTATION

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The case which forms the subject of this report presents features which, while they may be confirmed by textbook descriptions of this syphilid are worthy of note because of the time of their appearance and the nature of their response to treatment.

REPORT OF CASE

History.—The patient was a white man, aged 29, teamster by occupation, born in the United States. He presented himself at the University and Bellevue clinic, Nov. 12, 1917, with a double chancre on the dorsum of the penis, double inguinal adenopathy, enlarged epitrochlear and cervical glands, and stated that he had received nine intramuscular injections. He did not know just what medicine had been injected, and our inquiries led us to believe that it had been either mercury or possibly venarsen, at any rate, not salvarsan or arsenobenzol. In reply to the routine questioning, he acknowledged the occurrence and presence of an eruption at the time.

Examination.—Before completely exposing the patient for examination, his arm was bared for the taking of blood for a Wassermann test, and there was observed an apparently frank eruption of erythema multiforme on the thin skin of the flexor and ulnar side of the forearm; the lesions were circinate, not pruritic, purely erythematous (fading on pressure and directly reappearing), the circles measuring 1 to 2 inches in diameter, with quite definite borders measuring from one-eighth to one-fourth inch in width. On completely exposing the patient the eruption was found to be distributed over the trunk, arms, forearms, hips and thighs, and of similar character to that on the forearm, excepting that the circles on the trunk in some instances were of as large diameter as 3 inches. The lesions were without infiltration, purely macular, faint pink in color, and the centers were clear of any but the normal pigment of the rest of the uninvolved skin.

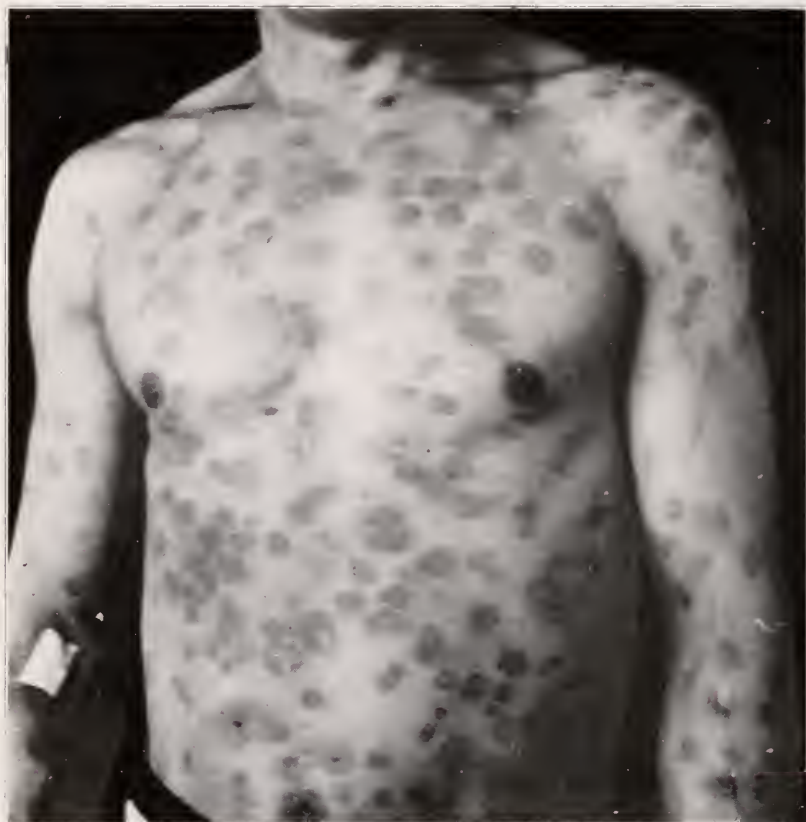
Clinical Features.—The clinical appearance was that of an erythema multiforme, there being no scaling whatever; over the chest region, however, there were observed in the center of each of two of these circinate lesions a brownish-red papule of about pea-size.

The history given was that the eruption had appeared about six weeks after the appearance of the primary lesion, and that the skin lesions were of about the same size and appearance as at the time of our observation. (It is probable that the lesions had appeared, without the patient's knowledge, as the

ordinary faint, finger-nail sized macules, and had enlarged and become apparent to him after a lapse of time.) The patient did state, however, that he had noticed the gradual clearing of the lesions.

TREATMENT

As it was inconvenient at the time of his first visit to the clinic to photograph the case, treatment with mercury by mouth, and arsenobenzol by intravenous injection was begun and the accompanying



A case of annular macular syphilis which so closely resembled a clearly defined condition of erythema multiforme as to make the differential diagnosis by objective symptoms alone very confusing.

photograph was taken two weeks after this first visit. In the photograph there will be noticed the presence of more than two circinate erythematous lesions containing central papules. These additional papules made their appearance as the erythematous lesions had faded, and while in the photograph the erythematous lesions show as well marked skin lesions, under the two weeks' treatment with mercury and two intravenous arsenobenzol injections there had been so marked a

change for the better that it was feared a photograph would no longer satisfactorily show the definition of the erythema element.

COMMENT

A case of annular macular syphilid is reported by Howard Fox¹ with a review of the literature on the subject and a photograph showing the lesions.

In this article, he notes that while the textbooks describe the occurrence of the eruption, there is quite a general agreement on the point that this peculiar manifestation appears in the late secondary or even tertiary period of the disease; that while the textbooks make mention of the occurrence, probably the description is not made from first hand observation; and that considering how few such cases have been reported in the literature it is an unusual manifestation of the disease.

The paper was read by him at the meeting of the American Dermatological Association, Washington, D. C., May 8-10, 1916, and in the discussion which followed Dr. Hazen spoke of the resemblance of all three of his cases of this lesion to erythema multiforme and of the occurrence of the eruption two years after infection in the first case, four months after infection in the second and six months after infection in the third case. Dr. Ravogli in this same discussion stated his observation of the eruption at about the end of the first year and sometimes in the second. While the eruption in the first of Dr. Hazen's cases had cleared up in about three weeks under the administration of "mixed treatment," Dr. Ravogli remembered the eruption to have remained for some time.

There is enough of the unusual in the case to merit observation of a point or two. So clearly definite a picture of erythema multiforme (except for the presence of the two pea-sized papules) was presented that a diagnosis from objective symptoms alone might easily have been incorrect. One is prompted to suggest the advisability of a Wassermann examination in a case of supposed persistent erythema multiforme, especially in the female, genital lesions in this sex so often escaping observation. Another point worthy of recollection is that there was a rapid disappearance of the eruption under usual treatment (as in Dr. Hazen's first case) as opposed to the usual belief that the annular macular syphilid may be resistant to treatment.

No spirochete examination was made, the indurated genital lesion, the adenopathy, and the eruption with its two very suspicious papules making a diagnostic picture, amply sufficient to warrant the institution of antisyphilitic treatment for the sake of gaining time in getting the disease under control, until the Wassermann report (one week later) should be known. The Wassermann proved to be ++++, and the patient responded rapidly to treatment.

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Society Transactions

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, Nov. 27, 1917

CHARLES MALLORY WILLIAMS, M.D., *President*

CASE FOR DIAGNOSIS. Presented by DR. G. H. FOX.

The patient, a man aged 58, was from Havana, Cuba, and showed an interesting and well-marked eruption, which had lasted for three years. At the hospital in Cuba it was diagnosed as lepra, and the man had in consequence been greatly worried and had lost much flesh on that account. The eruption consisted of innumerable papular elements, approximately lentil-sized, affecting chiefly the trunk and extremities. The lesions were oval and circular in shape, reddish-brown, smooth, free of scales and slightly infiltrated. There were also several large plaques, especially one on the lower part of the back, presenting a slightly raised, smooth, reddish surface, irregularly circular in shape, with a depressed, lighter-colored, sunken area in the middle of the patch. The central portion appeared like a retraction or shrinking of the skin in the interior of the plaque. There was no anesthesia; there was a little erythematous patch over one eyebrow, but it was not infiltrated and there was no swelling of the hands as in early lepra, nor was there the atrophy that one would expect at a later stage. The speaker said that he saw no indication of the dermatosis being lepra. Nor did the eruption seem to be syphilitic, in spite of its resemblance at first glance. The Wassermann reaction was positive, but the man had suffered from this condition for three years and there had been no involution of any of the lesions and no other indication of syphilis.

Another possible diagnosis was mycosis fungoides. There were some large patches on the back which suggested that condition, but there was no itching and no tumor formation, and that diagnosis would seem to be ruled out. One competent dermatologist who saw the case thought that it was a new growth, possibly sarcoma. There was a decided purplish color to the eruption, very clear in the day time but not so evident by artificial light. The lesions on the hands were very dark, almost blackish, but not nodular or notably infiltrated. There was a good deal of hyperemia connected with the eruption, and the speaker was inclined to consider it an inflammatory condition and not a neoplasm—possibly chronic lichen planus.

Dr. Heimann had made a biopsy of this case, but had not yet reported on it, so this was a good opportunity to make a clinical diagnosis. There were no lesions in the oral cavity. From the legs down there was a little eruption like an atrophic eczema. If it were a case of pigmented sarcoma one would expect to find well-marked lesions below the knees.

DISCUSSION

DR. TRIMBLE said that he would hesitate to give a definite opinion on such an unusual case. The large areas of dusky red, thickened skin with accentuated lines on the back presented some of the characteristics of mycosis fungoides. He could not now recall any other disease that would produce such plaques. The small scattered papular lesions, however, did not resemble that condition. The only other thing that he could think of was one of the types of leukemia of the skin; the eruption might fall into the group of cutaneous manifestations that accompany some form of that disease. Such conditions were rare and very vague, and few of us had seen many of them. The positive Wassermann

was in his opinion a mere coincidence; the eruption did not bear much resemblance to any of the well known cutaneous syphilids. He might have a positive Wassermann from an early infection of syphilis and some other skin affection later in life.

The fact that he had been in the Havana institution and there diagnosed as leprosy, together with the positive Wassermann, were the only reasons to make one suspicious of that condition; the eruption did not look like lepra. He would await the result of further study of the case with much interest.

DR. HEIMANN said that after Dr. Trimble's remarks there was little to add. The case was unique in that it presented so many features of so many diseases, and nothing definite of any one. The first thing that occurred to him was that clinically it suggested mycosis fungoides more than any other possibility. As for the closely related leukemids, the absence of itching ruled them out. The same applied to the possibility of lichen planus. It was almost impossible to conceive of so extensive a lichen without pruritus. The clinical features of leprosy seemed to be wanting. In generalized sarcoma, the lesions would be more waxy and solid to the touch than these were. Either mycosis or premycosis might be considered, together with the parapsoriasis group. He had an intuitive feeling that it was a mycosis fungoides.

DR. WISE said that he could not agree with Dr. Fox's diagnosis of lichen planus, and was inclined to class the dermatosis in the group of benign sarcomatosis of the skin.

DR. SHERWELL said that the only suggestion he could offer was to let therapy partially make the diagnosis. He would give the patient antisyphilitic treatment and see if that cleared up the matter partially or totally; also the roentgen-ray might help to solve the problem. To him it looked more like sarcoma than anything else.

DR. LANE said that he would not venture to make a diagnosis, although the appearance was that of mycosis fungoides rather than that of lichen planus. He could see nothing suggesting leprosy. He had noticed one thing which had not been mentioned, which led him to think that possibly there might be some internal lesions. The greatly enlarged superficial veins of the left arm suggested that there might be some obstruction of the deeper veins in the arm.

DR. SHERWELL remarked that the man told him he had never been treated antisyphilitically.

DR. KINGSBURY said he thought that it was high time he had such treatment.

DR. MACKEE said he had no diagnosis to offer, but that he did not think it was lichen planus or leprosy. He could not get any closer to a diagnosis than Dr. Heimann and the other speakers. He hoped that the histology would be definite.

DR. FOX said that the patient would be delighted to learn that no one supported the Cuban doctor's diagnosis that it was leprosy. The spot on the forehead and another one did suggest leprosy, but the absence of anesthesia and enlargement of the ulnar nerve, together with the lack of any numbness in the hands would rule out leprosy.

Although it had very much the appearance of a typical syphilid, the fact that three years had passed without any disappearance of any of the lesions, the large infiltrated patches, no tendency to annular eruption or mucous patches, would incline him to exclude syphilis regardless of the Wassermann reaction.

As to mycosis fungoides, many of the large patches very much resembled that condition; on the other hand, he had never seen a case of mycosis fungoides lasting for three years with such numerous lesions on the body and no itching. There was no tendency to tumor formation, which would be apt to show after three years.

The diagnosis of sarcoma had been suggested; a microscopic examination would reveal whether the condition was inflammatory or a new growth. If it was a new growth, he would be inclined to consider it to be sarcoma rather than mycosis fungoides. The notable purplish hue of the eruption and the large number of hyperemic papular lesions, both isolated and in groups, had suggested the diagnosis of generalized lichen planus. Some of the lesions, if not typical lichen planus papules, were flattened and umbilicated and as much like them as in many cases that were so diagnosed.

FAVUS. Presented by DR. HEIMANN.

The patient was a little girl, aged 13, born in this country of Russian-Jewish parentage. Three months ago she developed favus over the left breast, and then above that area, she developed three distinct types of lesions: one a ringworm type; another, of the scutulum type; and a third consisting of minute, red, pinpoint lesions resembling lichen scrofulosorum. The case was an interesting demonstration of the beginning and development of favus lesions. It was of still further interest because it developed in this country, and no other member of the family had had anything of the kind. The speaker said he had only that morning heard that the little girl had acquired the infection while in a camp where she was with some thirty other children.

DISCUSSION

DR. LANE said Dr. Heimann had remarked that the case was interesting in that it had developed in this country. He himself had seen some fifteen cases of favus in New Haven, every one of them occurring in children born in this country; all were Italians. Very likely it was carried to them by some adults that brought it in, but all the cases were in native children, and he had not yet seen a case which had developed in a foreign country and had been imported.

DR. WISE suggested the inoculation of a domestic mouse to see whether it would become infected with scrapings from the lesions.

DR. SHERWELL said that he had seen this affection in the lower animals—dogs and mice, and had written a paper on the subject (American Dermatological Association, 1892). One case developed in Brooklyn, another in a Long Island villa residence. The pet dog in the last mentioned instance had caught some field mice so affected, played with their bodies, and had acquired the trouble. He then infected two daughters of the house on the neck and face. The speaker sent some of the dead mice to Professor Unna, Hamburg, and he expressed himself much gratified to have them. Also some were sent to G. Behrends, Berlin, both of whom made microscopic examinations and found the same organism. Unna gave a long description of his findings in THE JOURNAL about that time. Another lot of cases, also in mice, were seen in the city home of a well known jurist of Brooklyn. It was most marked in their ears and the irritation therefrom was such that they got crazy—would run up the curtains, etc., and allow themselves to be caught by hand. This might have been the source of infection in the girl presented by Dr. Heimann. She was in a camp where such animals might have been.

DR. FOX said that forty years ago he had photographed a beautiful little girl whose body was covered with small reddish discs. At first it was regarded as a case of tinea tonsurans maculosa, but in a week or two minute yellow crusts began to appear and it proved to be a typical case of favus.

DR. HEIMANN said that mouse favus ran a different course in human beings from that presented in this case. It caused lesions like an ordinary pustulo-vesicular ringworm, and the actual fungus was determined only by cultures with Sabouraud's medium.

ATROPHIA MACULOSA WITH DENSE SURROUNDING PIGMENTATION. Presented by DR. TRIMBLE.

The patient was a young woman, aged 20, single. Nativity, Russia. She had been shown at the previous meeting by the speaker, as a peculiar pigmentary condition of the neck, resembling the pigmentary syphiloderm. At a subsequent examination the white lesions scattered through the pigmentation were seen to be undergoing very slight changes of an atrophying character; so there did not seem to be any doubt about the condition being one of atrophy, in addition to the pigmentation.

DISCUSSION

DR. G. H. FOX said he was convinced that this was not a case of vitiligo nor the vitiligoid syphilid, for the spots were not smooth and round, but wrinkled and of irregular form. He had seen a number of such cases which he had diagnosed as morphea before the white spot disease was described, and he thought this eruption was allied to morphea, though not a typical case.

DR. HEIMANN said that when the case was presented he had thought it an ordinary case of pigmentary syphilid, but that he was now forced to change that view and agree with what Dr. Fox had said.

DR. MACKEE said that he knew of no disease that would produce white, oval, atrophic, depigmented macules, surrounded by hyperpigmentation. Until further study, he was inclined to agree with Dr. Fox that the case was one of anomalous white spot disease, probably at or almost at the end of involution.

DR. TRIMBLE said that he had brought the patient back because when she had been shown before, only one or two of the members said anything about the atrophy; it did not then show distinctly, but had developed markedly since then. There was no doubt now in his mind that it was atrophy of the skin; the type could be decided later.

CASE FOR DIAGNOSIS. Presented by DR. TRIMBLE.

The patient was a woman, aged 56. She presented immediately to the right of the middle line of the forehead a red linear lesion, about one-half inch wide, slightly infiltrated and extending from the hair line above, to the eyebrow below. It had existed for four months, and was accompanied by severe headache across the whole forehead. There had been no change in the lesion since its appearance, and no other subjective symptoms. The Wassermann reaction was negative. The urine was normal with the exception of a very slight trace of albumin. Blood pressure, 145.

DISCUSSION

DRS. HEIMANN, WINFIELD and WISE thought it was scleroderma.

DR. G. H. FOX thought that this would undoubtedly develop into the banded form of scleroderma.

DR. WISE said that Dr. Ludwig Weiss had shown a similar case, which he cured in about one year with thyroid extract and no other medication.

DR. SHERWELL said that he had referred a case to Dr. Johnston (on account of her residence being in New York) of the most extensive distribution of scleroderma he had ever seen, the face, upper and lower limbs, and trunk being affected. He had personally used in her case pituitrin, with, as it seemed, good results, and Dr. Johnston had continued the same with greatly increased dosage, more than the speaker had ever administered, and the condition was improving markedly.

MULTIPLE BENIGN SARCOID (BOECK). Presented by DR. TRIMBLE.

The patient, a male adult, white, aged 23, presented on the left malar eminence two nodular infiltrations adjacent to each other, the larger being about the size of a dime, and the other about three-eighths inch in diameter, with

pinkish or reddish borders, and yellowish or whitish centers. The color in the border disappeared largely on stretching the involved area of skin, the color of the center appearing white.

The family history was negative for tuberculosis.

The lesion started as a "pimple" eighteen months ago, and gradually increased in size without subjective symptoms. His wife and child were both well. The Wassermann test, Nov. 21, 1917, was negative.

CASE FOR DIAGNOSIS. Presented by DR. TRIMBLE.

The patient, a white woman, aged 29, presented on the bridge, sides and tip of the nose four areas of dusky red or brownish infiltrations, with borders elevated above the level of the involved and uninvolved skin and of a dull glistening character, the center of the larger lesions being sunken or depressed. The largest area, situated on the right side of the nose near the eye, was about 1 inch in its larger diameter and probably about one-half inch in its smaller dimension; it was the oldest and most developed lesion; its central portion was distinctly sunken. The smallest lesion was that on the tip of the nose, being about the size of a small pea, and did not show the central depression or absorption apparent in the other lesions, so that it appeared as a small flat nodule with a distinct border; the flattened surface of this small nodule was of lighter tint (yellowish or whitish) than the duller brownish color of the other lesions. There were no scales and no enlarged follicles. Telangiectases were apparent in the largest lesion. The duration was about two years.

Family History: The father died at 30 years of pulmonary tuberculosis. Otherwise the history was negative.

Personal History: The patient was always in good health except for typhoid fever, twenty years ago. The Wassermann reaction was negative. There had been slight scaling formerly which had disappeared after the use of ointments. The eruption had rarely itched and then not intensely.

DISCUSSION

DR. G. H. FOX said he would not like to make an absolute diagnosis, and he would not say that these were not cases of the sarcoid of Boeck, but the few cases that he had seen presented a tumor formation and were without the serpiginous condition which seemed to obtain in these cases, and he doubted if the diagnosis of sarcoid was justified in either instance.

DR. WISE said that the lesions of the man's cheek resembled granuloma annulare, and called attention to the fact that some authorities (notably Galewsky) included granuloma annulare in the sarcoid group. In regard to the patient under discussion (the woman) he thought the lesion might be one of Brocq's angio-lupoid.

DR. MACKEE said the angio-lupoid mentioned by Dr. Wise had been proven to be sarcoid.

DR. WINFIELD accepted Dr. Wise's diagnosis, and said that if the woman were his patient he would call it lupus.

DR. HEIMANN said that in the case of the man, the conditions that suggested themselves were the sarcoid of the Boeck type or atrophic lupus erythematosus, or morphea in the early stages. The second concept could be dismissed, for it had none of the characteristic features; morphea also could be dismissed. As to the choice of the various members of the other group, the distinctions made were largely meticulous, for they were closely related granulomas. He was inclined to sarcoid, for the lesions were not hard; it was more of an edema which reached its maximum at the margins than an infiltration, which would bring it back to the sarcoid group. On purely clinical grounds he was inclined

to consider the condition as being a sarcoid of the Boeck type—perhaps a disseminated lupus erythematosus.

The girl presented the same features and suggested the same line of thought; but coming as she had under treatment, the lesion looked more like the ordinary lupus erythematosus, and that would probably prove to be the diagnosis in her case.

Dr. MacKEE said that one of the previous speakers had suggested the diagnosis of granuloma annulare in the case of the man. He disagreed with this diagnosis, because the lesions were too superficial and not sufficiently elevated or hard. Both on inspection and palpation, one gained the impression of slight infiltration and marked edema and vascularity, whereas the clinical impression in granuloma annulare was just the opposite. Furthermore, there was distinct atrophy, which was not a characteristic of granuloma annulare. Dr. Wise suggested a very close relationship between granuloma annulare and sarcoid. Clinically the two affections were distinct entities, and the anatomy also was dissimilar. In sarcoid the histologic structure was that of tuberculosis, while in granuloma annulare there was a diffuse infiltration with a very marked and characteristic degeneration of collagen. The speaker understood that in certain stages of evolution the histology of granuloma annulare suggested a tuberculid.

The diagnosis, clinically, in the man appeared to rest between sarcoid and lupus erythematosus, and while the speaker favored lupus erythematosus he could not exclude the sarcoid of Boeck. Certainly, it was not the sarcoid of the Darier-Roussy type as Dr. Heumann had suggested, because this type was very deep seated and resembled Bazin's disease.

In the case of the woman, the speaker was puzzled by the presence of the rolled edge as were also the previous speakers. The telangiectasis and atrophy of lupus erythematosus were present, but there was the smoothness and infiltration of sarcoid. The speaker was unable to make a definite clinical differentiation between the two diseases.

Dr. TRIMBLE said that he had seen the man twice before, and the diagnoses that had suggested themselves were just those that had been given—sarcoid, morphea, lupus erythematosus and granuloma annulare, though the last was soon dismissed. Although the yellowish white color looked quite a little like granuloma annulare, the fact that the condition did not have the hard elevated border and depressed center seen in these cases caused it to be discarded. The main reason for rejecting the diagnosis of morphea was that it had no increased pigmentation at the edges and no telangiectases; that left lupus erythematosus and sarcoid to be considered.

He had never seen lupus erythematosus with a white infiltration like this. It did not seem to have any special features of lupus except the location and the fact that it had been there two years; there were no adherent scales, no patulous follicles and little redness; he was therefore inclined to call it sarcoid, the multiple benign type described by Boeck, and he agreed with Dr. MacKee in that the Darier-Roussy type of sarcoid was a deep seated lesion and not like the case presented. As for the woman, he confessed that a positive diagnosis was at this time beyond him. Naturally the first thought was lupus erythematosus, since a certain amount of scaling was present and since she had also several small outlying lesions. The large lesion had a depressed center and a peculiar waxy border, which seemed foreign to the ordinary case of lupus erythematosus. There was slight scaling at first, which had been relieved by treatment. It might yet turn out to be an ordinary case of lupus erythematosus, but the larger lesion had some indications of epithelioma; the elevated waxy border, the telangiectasis, and the depressed atrophic center suggested the morphealike epithelioma. The fact that there were sev-

eral lesions present, and many of the typical features of erythematosus lupus were absent, caused him to think that the case might be an atypical sarcoid.

LEPRA MACULO-ANESTHETICA. Presented by DR. WISE for DR. MACKEE.

G. P., a man, aged 30, a native of Greece, was from Dr. Fordyce's clinic. The duration of the condition was six years. The patient presented an early eruption of leprosy on his face and on the backs of his arms—the eruption being of a peculiar brownish, mottled character. On the face there were several smooth dusky red plaques, most pronounced over the eyebrow region. The eruption on the arms was entirely macular and presented a condition similar to cutis marmorata. Anesthesia was pronounced and the ulnar nerves were enlarged.

SYPHILODERMA, WITH KELOIDAL SCARS. Presented by DR. HEIMANN.

The patient, J. E., was a young man from Dr. Fordyce's clinic, with a primary lesion on the penis. A year ago, when he first came to the clinic, he had a rapidly developing syphiloderm with all the symptoms of scars, etc., and two keloid scars on the left arm. He had been treated at the clinic with mercury and locally with a white precipitate ointment. He was presented on account of the various types of lesions still remaining, especially the keloid and other scars.

FOR DIAGNOSIS (ATROPHODERMA). Presented by DR. WISE for DR. FORDYCE.

The patient, C. R., was a man aged 50, born in Germany, who had been in the United States for thirty-five years. The disease had been of five months' duration. The exhibitor thought it would be better to present the case for diagnosis, as the patient showed lesions which were of rather unusual interest. The duration was said to have been five months, but presumably it had been longer, judging from the appearance of the lesions on the chest, which were atrophic in character and in which the hair follicles were not only prominent but hyperpigmented, whereas the surrounding skin seemed to be depigmented. There were also numerous lesions on the back, chest and abdomen, which were distinctly erythematous and acute in character. On the thighs there were several lesions, more or less atrophic and somewhat sclerodermatous, or a combination of both.

At first sight the erythematous lesions on the back resembled those of early mycosis fungoides or leukemia cutis. Itching was intense. A blood count, submitted by Dr. Vogel, of Columbia University, revealed the following: Polymorphonuclears, 57½ per cent.; lymphocytes, 23 per cent.; transitionals and large mononuclears, 4 per cent.; eosinophils, 14½ per cent.; basophils, ½ per cent.

The possibility of early leukemia or Hodgkin's disease was suspected.

XERODERMA PIGMENTOSUM. Presented by DR. WISE for DR. MACKEE.

The patient, A. P., a little girl, aged 7 years, was born in the United States of Italian parentage. She came from Dr. Fordyce's clinic and had been seen for the first time the day previously. The duration of the trouble had been five years. The family history was negative. She presented a large number of freckles on the arms and legs, and on the face and neck, with keratoses. There were no atrophic pits, such as were sometimes seen, and very few telangiectases. She presented an epithelioma of the right ala of the nose, with numerous verrucae on the face. She had opacities of both eyes. The other children of the family were living and healthy.

CHICAGO DERMATOLOGICAL SOCIETY

*Regular Meeting, Nov. 20, 1917*WILLIAM A. PUSEY, M.D., *President**(Continued from p. 378)*

PELLAGRA. Presented by DR. HARRIS.

The first patient was a woman, aged 40, a seamstress by occupation. She complained of pain in the epigastrium, nausea, vomiting, diarrhea, loss of weight and weakness. The onset of the gastric symptoms was two years previously. Diarrhea had been present for three months. Personal and family history negative. Test meal and roentgen ray showed evidence of carcinoma. Her diet consisted almost entirely of turnips, beets, cornmeal mush, crackers, bread and soup occasionally; no meat. She was becoming mentally duller and more apathic.

The second patient was a man, aged 43, by occupation a porter in a saloon. He complained of itching, excoriations and pediculi were present. The teeth showed pyorrhea and carious processes; the tongue was reddish with a raw margin. The skin of the dorsum of the hands was atrophic, with brownish pigmentation, a typical case of "gloved-hand." The symptoms consisted of diarrhea (involuntary evacuations), lassitude, hallucinations and disorientation. He was on dietetic treatment. The pellagrous symptoms cleared up under dietetic treatment except that the mental condition was still far from normal.

DISCUSSION

DR. PUSEY said he had seen a case of pellagra develop right under his eyes. The patient had an epithelioma on the tip of his nose and while under treatment for that developed what the speaker considered an erythema multiforme on the backs of his hands. This went on rapidly at first to a frank case of pellagra. It subsided with cold weather very much as this man's had, to recur the following summer. This patient lived in very comfortable circumstances.

DR. HARRIS recalled the case of a little boy, who had appendicitis and had been on special diet and developed the disease. The woman patient shown here had been on a diet of tea and toast for some time before pellagra developed. He thought the disease was a result of a monotonous diet.

CHANCRE OF THE LIP. Presented by DR. McEWEN.

This patient was presented at the last meeting and was shown again because he had developed an area of necrosis about the lesion and there had been no improvement under treatment.

DISCUSSION

DR. FISCHKIN thought it might be a soft chancre and a hard chancre mixed. He thought the antisiphilic treatment the man had been receiving had healed up the syphilitic manifestations of the disease and that what was left was a soft chancre.

DR. HARRIS stated that after being shown at the last meeting the man developed an area of necrosis. He thought it was a very badly infiltrated chancre with possibly a secondary infection from the secretions of the mouth.

DERMATITIS HERPETIFORMIS VEGETANS. Presented by DR. HARRIS.

The patient was a man, aged 39, by occupation a waiter. This patient had been shown many times during the last five years. He was shown now because he was having a new attack and showed the vegetative type of lesions.

FOLLICULIS. Presented by DR. HARRIS.

The patient was an obese man, aged 27, a teamster by occupation, single. The onset of the disease occurred eight years previously. The lesions consisted of reddish papules on the legs which became necrotic and healed in

about three months, leaving a pigmented scar. A lesion appeared on the penis six months later. The lesion on the penis had never healed completely and had destroyed most all of the glans. The lesions on the legs had come out in crops. At one time the patient was in the hospital with a typical Bazin's disease and at the same time showed the folliclis. The Wassermann reaction, June 28, 1917, was ++ positive; six Wassermann tests previously had been negative. The patient had received many salvarsan injections as well as much other antiluetic treatment with no result.

DISCUSSION

DR. FISCHKIN thought the scars on the legs were typical of syphilis.

DR. HEIDINGSFELD believed it was a tuberculid of the skin.

LEUKOPLAKIA BUCCALIS. Presented by DR. FISCHKIN.

The patient was a man, aged 34. There was no history of syphilis or tuberculosis; he was married and had five healthy children. In the inner surface of the left cheek, on a line tracing the conjunction of the upper and lower teeth there was a band of aggregated plaques, fissured and elevated above the surface of the mucosa, of a dull brown color. At about the distal third of the line the mucosa became much thinner, hyperkeratotic with characteristic grayish (nitrate of silver) color. At the commissure the leukoplakia branched off to the upper and lower lips, stopping at about the middle of the lip. On the upper lip near the commissure was a small superficial ulcer with soft base and edges covered with a crust. The mucosa of both lips was highly atrophic, in places granular.

DISCUSSION

DR. PUSEY thought it was a case of leukoplakia, a condition which produced various sorts of pictures in the mouth.

MELANOTIC CARCINOMA. Presented by DR. MACKEY.

The patient was a man, aged 25, who smoked cigarettes immoderately. The lesion appeared about three years previously, becoming more extensive about one year ago. It consisted of an ulceration about the size of a peanut shell with a large amount of pigmentation involving the region of the hard palate and extending down to the gum line on the left side.

DISCUSSION

DR. ORMSBY believed it was an epithelioma, but could not account for the pigmentation.

DR. FOERSTER was reminded very forcibly of bismuth pigmentation of the mucous membranes seen in the Children's Hospital following the use of bismuth paste. There were light gray lesions with distinct irritation of the mucous membrane, such as was seen in bismuth pigmentation, but on closer inspection it looked like a malignant growth. He thought in this case the pigmentation might possibly have been produced by nitrate of silver, as black areas sometimes occurred from that.

DR. FISCHKIN stated that one should think of the possibility of the pigment having been there all the time.

DR. PUSEY was of the opinion that the central lesion was malignant, probably carcinoma, but he was not inclined to believe that all the pigmented area represented carcinoma. He had seen several cases of lesions on the lip or in the mouth where pigmented areas appeared and gradually enlarged; and this patch looked very much like the same sort of process. He had seen these pigmented areas appear, persist for several months and then disappear. They were not necessarily malignant.

BLASTOMYCOSIS (GENERALIZED). Presented by DR. ORMSBY.

The patient was a man, aged 41, and the duration of the disorder was fifteen years. The first lesion occurred on the internal surface of the right thigh. The disorder gradually spread until the area depicted in the photograph became involved. During the last year and a half evidences of systemic involvement had been presented.

Another point of interest was the fact that during the last two and a half months great improvement had occurred through the administration of six injections of salvarsan. Previous to this, under potassium iodid and other measures, the disease had continued to progress.

BLASTOMYCOSIS. Presented by DR. STILLIANS.

The patient was an American woman, aged 25, who presented lesions which had been present constantly for thirteen years. She was shown because of recurrence under heavy doses of iodid and after treatment with roentgen rays. The roentgen rays had reduced the size of the tumors remarkably, but recurrences had taken place at the borders of the remaining lesions and in the scars of lesions apparently healed.

DERMATITIS REPENS. Presented by DR. ORMSBY.

This patient was shown at the previous meeting and was exhibited again to show the lack of response to the treatment.

The treatment employed during a period of three months included two injections of salvarsan and tonics internally. Locally, for varying periods, the following ointments: Wilkinson's, a strong ammoniated mercury, a 10 per cent. ichthyol, and at intervals a soothing cream. Wyeth's iodine petrogen gave temporary relief. Dakin's solution was used for some time without result. One period of roentgenotherapy was given and at present the quartz light was being employed.

DERMATITIS REPENS (?). Presented by DR. McEWEN.

The patient was a man, aged 50, whose trouble had been present for two weeks. The lesions began as vesicles involving the dorsum of both hands and fingers and extending over the forearms; the skin was undermined and raised and maceration was very evident. On the body there were definite discrete elevations, resembling wheals, but clearing in the center. In some instances scales had formed over them and they had fused. There were no objective sensations on the body.

A pure culture of *Staphylococcus aureus* had been obtained from the vesicles.

DISCUSSION

DR. LIEBERTHAL asked if the ultraviolet rays had been tried and suggested that they be used in this case.

DR. McEWEN was of the opinion that the category of dermatitis repens was being extended to include parasitic eczemas.

DR. STILLIANS mentioned the fact that Sutton had found *Staphylococcus aureus* in all the cases he called acute dermatitis repens and that was the only organism found in the fresh bullae in the case presented.

DR. ORMSBY believed the lesions on the neck were of the same character as those on the hands, though they were more dry and did not exhibit the same tendency to recurring pustulation. The feature that impressed him most in all of these cases was their persistence in the majority of patients. Treatment that was successful in ordinary infections of the skin had no effect in these cases. Crocker thought there was a neuritic element present together with some infection. The case presented probably showed a picture described by Hallopeau under the title "acrodermatitis perstans." The distinction between

this and dermatitis repens was difficult to make. The constant recurrence of pustules all over the affected area together with lesions on the body was more characteristic of Hallopeau's than of Crocker's dermatosis. From independent observation it would seem that distinctions could be made and a study of the disorder was indicated for its proper placement. Simple cases of dermatitis of infectious origin that responded readily to ordinary antiseptic treatment did not appear to belong properly in the same category as this obstinate, rebellious disorder.

DR. PUSEY stated that he had seen more cases of dermatitis repens in the last few months than he had ever seen before. He believed the prognosis was fairly good in the early cases, but in the older cases they never got well. Dermatitis repens, as he understood it, was a suppurative inflammatory process beginning usually on a finger and then spreading with an undermined border.

His idea of dermatitis repens was not just as Dr. Ormsby described it. His conception was a process which was very often an acute process due to pus infection and which would yield to treatment. There was another group of cases, subacute in intensity and practically incurable, such as Dr. Ormsby described, but they were not exclusively entitled to the name dermatitis repens.

CASE FOR DIAGNOSIS. Presented by DR. HARRIS.

The patient was a woman, aged 36, married, who presented an itching rash on the legs, arms and body, which had been present for one year. This rash was a chronic generalized eczema. The interesting feature of the case was a reticular appearance of the skin of the outer surface of the leg. It looked much like a cutis marmorata but the red reticulum alone showed scaliness. This was very different from the eczematous eruption on the rest of the body. The family history was negative, and the Wassermann reaction was negative. She was being treated with Lassar's paste and 5 grains of thyroid gland.

DISCUSSION

DR. McEWEN thought it was primarily a lichen planus.

DRS. FISCHKIN, MITCHELL, FOERSTER, and ZEISLER considered the eruption not a lichen planus, but a lichenification of the skin.

DR. PUSEY thought it was a lichen simplex chronicus Vidal, and did not consider it strange that a chronic dermatitis would produce such pictures at times. In other words, he believed it was a chronic papular eczema with lichenification.

DR. HARRIS thought that was true except for the lesions on the outside of the leg.

SYPHILIS, ERYTHEMA INDURATUM AND LICHEN PLANUS. Presented by DR. STILLIANS.

The patient was a woman, aged 33, a Bohemian. She was infected with syphilis in 1915, neglected treatment and had a gumma of the palate in 1916. Since then she had had three doses of diarsenol, with mercury rubs and iodid most of the time since. Lesions on the calves consisting of large, brown, indurated patches with central ulcers had been present for about a year. There were also hyperkeratotic, dull red nodules on the flexor surfaces of the wrists which had been present for several years and itched considerably at times. Her Wassermann reaction had been negative for over six months, but she was still on treatment. The hole in the hard palate had been closed by a rubber obturator.

CASE FOR DIAGNOSIS. Presented by DR. PUSEY.

The patient was an old man with an extensive superficial ulcer involving the skin of the cheek over an area $2\frac{1}{2}$ inches wide and $4\frac{1}{2}$ inches long. The lesion was very superficial, showing a bright red surface with borders without

induration or nodules. The history was that it had existed for several years and had gradually spread to its present extent.

The glans penis was atrophic and glistening and showed two or three gray horny areas.

DISCUSSION

DR. PUSEY believed the condition on the face was epithelioma, changed in appearance by radium treatment. There was in addition an atrophic glistening condition of the glans, which represented one of the cases Crocker had described as balanitis perstans. The speaker thought it was essentially identical with kraurosis vulvae.

SEBORRHEIC DERMATITIS. Presented by DR. HARRIS.

The patient was a girl, aged 18, a factory worker. The disorder had been present about two years. The lesions consisted of yellowish, greasy, scaly areas on the scalp; also weeping, sharply defined areas in each axilla and the genital and suprapubic regions. The case was very resistant to treatment and showed a marked tendency to recur. There was present also a bilateral purulent otitis media.

TUBERCULID. Presented by DR. HARRIS.

The patient had been shown at the last meeting as a case of zoniform papulonecrotic tuberculid with a generalized tuberculous lymphadenopathy of Sternberg.

A biopsy showed necrotic tubercles with characteristic epithelioid and giant cells.

CASE FOR DIAGNOSIS. Presented by DR. McEWEN.

The patient was a man, aged 53, a cabinet maker by occupation. Family history was negative; he denied venereal infection. The disorder had been present for nine months with lesions beginning on the neck which were described as "scratch marks which blistered and made the clothes wet." The lesions had subsequently spread and involved the neck, chest, back, inguinal region, feet and hands, and had proven very refractory to treatment.

DISCUSSION

DR. McEWEN considered it a feigned eruption.

CASE FOR DIAGNOSIS. Presented by DR. McEWEN.

The patient was a man, aged 65, who presented some peculiar lesions on the buttocks which had been present for two or three weeks. The lesions were linear in distribution, crust covered and were apparently going to heal with some scar formation. There were two similar lesions on the ankle but none elsewhere on the body.

VACCINIA (?). Presented by DR. McEWEN.

The patient was a colored man, aged 30, who presented lesions which had appeared three or four weeks after vaccination and which had been present for two weeks. The lesions were vesicles, in many instances crust-covered and were present in moderate numbers on all parts of the body.

DISCUSSION

DR. PUSEY was doubtful about a vaccinia coming on so long after vaccination. He believed it was simply a pus infection.

DR. STILLIANS asked if vaccinia presented such angular lesions as those causing the marks on this patient's forehead. In the cases of vaccinia he had seen the lesions were all round.

EPIDERMOPHYTON OF WEB OF FINGERS. Presented by DR. HARRIS.

The patient was a woman, aged 21, single. There was a history of syphilis. She presented an eczema of the web and adjacent part of fingers which had been present for about two months. The sharply defined red scaly area extended peripherally from the web of the fingers to a slight extent on to the dorsum of the hand, but to a greater extent along the contact surface of the fingers.

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meeting, Dec. 11, 1917

HOWARD FOX, M.D., *Chairman*

LICHEN PLANUS. Presented by DR. PAROUNAGIAN.

The patient, Mr. J. T., aged 41, was born in the United States. The lesions were confined to the glans penis and corona glandis only and the duration was about four weeks. The lesions were violaceous in color, slightly itchy, with shining tops. There were a number of circinate patches with a moderate amount of infiltration. In the earlier stages of the disease, on account of the presence of a balanitis-like condition, the diagnosis was not quite clear and a Wassermann test was made with negative results.

The patient was presented on account of absence of lesions elsewhere on the body, including the buccal mucosa, and also such slight amount of itching.

LUPUS VULGARIS. Presented by DR. OULMANN.

The patient was a boy, aged 12 years, who developed a swelling of the right lymphatic gland of the neck and showed a few nodular lesions on the cheek. The swelling softened, was incised and discharged pus. The nodular lesions became partly pustular and two or three more groups developed. At the end of about two weeks the scar also developed the same type of lesions. The case was presented as one of lupus vulgaris, following a tuberculous infection of the lymphatic gland. At one place the lesion had been treated with the solid carbon dioxid snow and at another the gland was excised.

DISCUSSION

DR. SATENSTEIN said he thought it was understood that the carbon dioxid snow did not do these cases much good, as one could not reach the depth of the lesion.

CONDYLOMATA. Presented by DR. PAROUNAGIAN.

The patient, H. L., a boy, 15 years of age, stated that some time during the summer a man took him into a hallway and committed sodomy on him. About two weeks ago sores developed about the anal region, for the treatment of which he applied at the Gouverneur Hospital clinic. Examination revealed a faint roseola, marked adenopathy and extensive condylomata about the anal region. His Wassermann reaction was + + + +. The genitals were free from lesions.

LICHEN PLANUS ANNULARIS. Presented by DR. WISE.

The patient was an adult Chinaman, who had been shown on two or three previous occasions. He presented a number of pigmented lesions, which could be seen at a distance, and appeared to be the remains of some preexisting eruption. He also showed several active circinata plaques and festooned patches, some having centralized lesions, chiefly on the thighs and buttocks. A biopsy was performed, the sections revealing a typical picture of lichen planus. The lesions were also situated on the arms, legs and trunk.

DISCUSSION

DR. MACKEE said that clinically and histologically the diagnosis was lichen planus.

DR. WISE said the histologic picture was unquestionably that of lichen planus and there were no evidences of lepra, either clinically or microscopically or any other form of granuloma.

TERTIARY NODULO-PUSTULAR SYPHILODERM, SIMULATING FOLLICULITIS NASI. Presented by DR. GOTTHEIL.

The patient, a man, aged 40, was admitted to the City Hospital, Nov. 30, 1917, for an eruption on the nose, cheeks, and lip. He presented the picture of an inflammatory rosacea, complicated with a folliculitis; there were a few dark red tubercles on his nose, but the predominant features of the eruption were the general swelling and redness of the nose, the adjacent part of the cheeks, and the upper lip, with a large number of apparently peripilous pus infections. The ordinary features of the nodular syphiloderm were entirely lacking. After a short period of observation, however, the diagnosis became evident; the follicular pustules enlarged and became small circular ulcerations, and the nodular character of some of the lesions became evident. He had had a rosacea for years, with occasional inflammatory papules and pustules and thought that his present affection was merely an exacerbation of his old trouble. The combination of a follicular pustular syphiloderm with the syphilitic nodules, and with his old acne and rosacea, was interesting. His history was corroborative. He had syphilis at 20; at 25, fifteen years ago, he had a "paralysis," from the after-effects of which he was still suffering.

Of importance in this connection was the undoubted fact that at the City Hospital they were no longer getting the brilliant immediate results from salvarsan that they formerly obtained. The secondary eruptions and mucosal lesions persisted for weeks, and receded very slowly, and the tertiary lesions were recalcitrant. They had employed the various American and foreign substitutes for many months, and owing to the scarcity of the drug, they had to divide the doses. Their conviction was that they secured just as quick and good temporary results from mercury alone; and in almost every case they were obliged to resort to this latter drug in addition to or in place of the arsenical preparations. Reactions with the new preparations were the rule, and were severe.

DISCUSSION

DR. MOUNT said, in regard to arsenical preparations, that he had never seen eruptions fade as fast as they did under the administration of galy. They seemed to disappear much more rapidly than even under the old salvarsan, and did so under correspondingly much smaller doses, doses of 0.3 gm. He had seen no bad effects.

DR. SATENSTEIN said he had treated a man, who had received three injections of galy, given every other day. After the third injection, within ten minutes, he complained of severe headache, so that they had to lay him down on the table. The next day he appeared with a general erythematous eruption. He had been presented at the October meeting. It took a number of days for the eruption to disappear. The patient had a large initial lesion of the chin, which had healed up very rapidly. It began to heal the day after the injection. At the end of the first week it was covered over with epidermis.

GUMMATOUS PERIOSTITIS OF THE FOREHEAD. Presented by DR. PAROUNAGIAN.

The patient was a woman, aged 35, born in Russia, and married. She was seen at the Gouverneur Clinic with a swelling on the forehead about the region of the left frontal eminence, about the size of a hazel nut. The duration

was five weeks; it was a firm, painless and immobile mass. She gave no history of any value, she had had no miscarriages, but had three healthy living children. She stated that she suffered with severe headaches for several weeks prior to the appearance of the swelling. The Wassermann reaction was + + + +. No treatment was administered prior to the presentation.

DISCUSSION

The consensus of opinion was that the lesion was a syphilitic periostitis.

ERYTHEMA MULTIFORME. Presented by DR. WISE.

The patient was an adult woman, who had been presented on a number of occasions, and was originally a patient of Dr. Gottheil's, who made the diagnosis of erythema multiforme during one of the patient's attacks. She was presented a month previously with a questionable diagnosis of erythema multiforme because the lesion so closely resembled lupus erythematosus. They were still not positive regarding a diagnosis of erythema multiforme, and considered lupus erythematosus of the discoid type, as she presented lesions of a more or less discoid character, with raised edges and depressed interiors, persisting for weeks with little signs of involution.

GUMMA. Presented by DR. PISKO.

The patient was an adult colored woman, who exhibited an ulcerated gumma of two years' duration, and who had had a number of salvarsan injections. She also had been given salicylate of mercury injections and while the lesion healed for awhile, it always broke open again. It was now most painful, as the lesion was in the knee joint and she could not sleep at night on account of the pain, and she had not had the use of the leg for some time. When she received any form of treatment, either mercury or salvarsan, she immediately became salivated, and felt still worse, and then the sore broke open again. The speaker brought the patient before the Society to ask what he should do for her. She nursed a baby, which was apparently well. She had a + + + + Wassermann reaction, taken repeatedly. The baby's Wassermann reaction, taken twice, was negative. The baby was now 14 months old and she still nursed it.

DISCUSSION

DR. GOTTHEIL said in this connection he would like to call attention to a case that he was unable to bring before the Society, as the man was confined in a wheeled chair. He entered the hospital about six weeks previously for a very deep and extensive ulceration of his right thigh, which had been present some two months. His left leg had been removed at the middle third of the thigh two years ago, in a hospital of this city, but he had not gone back to that hospital for fear they would amputate his remaining limb. The lesion that he presented was a very extensive and very deep gummatous ulceration on the back of the left thigh; it was so large that a clenched fist could be placed in it. He was immediately given appropriate treatment, with the result that his lesion was practically cured. His history was that the lesion on the left thigh was precisely similar to the present one on his right; that an immediate amputation was done, without preliminary treatment. Inquiry at the hospital in question showed no record of either a microscopic examination or a blood examination; the disease was simply called a deep ulceration of the leg. The patient was an old syphilitic. It seemed justifiable to conclude that the lesion for which his leg was amputated was a gumma. In his opinion such lamentable mistakes occurred with unjustifiable frequency. A few days' treatment would have demonstrated the nature of the lesion and saved the man his leg. He could adduce more than one similar instance from private practice.

DR. G. H. FOX said that years ago one used to see twenty or more cases like the one presented, where one was seen now. He said if the woman would wean her child and get out into the fresh air, daily, her general physical

condition would improve. He would advise curettage of the lesion, or what was next best to curettage, the old fashioned mercurial plaster. He had seen such ulcerations heal up in a very short time under this treatment, although gummous lesions in this locality were usually obstinate. He thought the mercurial plaster was the simplest and easiest method of local treatment. A great deal of suppuration tended to produce healthy granulations.

DR. GILMOUR said he had found good results in these cases by filling up the hole with a 10 per cent. blue ointment and putting a bandage for support from the toe to a point above the knee, as in this case, to hold the knee still. In addition one might strap the leg.

DR. PAROUNAGIAN said the lesion ought to heal up with salvarsan, and he did not think that the patient should be put to bed.

DR. SATENSTEIN said they had lost sight of one point, that the patient was very susceptible to mercury, no matter in what form, and she became salivated. He had a similar experience with a patient, a man of about 25 years, an athlete, in good physical condition, with a syphilitic infection. No matter what injection of mercury was given, it would salivate him. Even $\frac{1}{4}$ grain of salicylate, or $\frac{1}{30}$ or $\frac{1}{40}$ grain of bichlorid. The speaker then started him on $\frac{1}{25}$ grain of calomel, combined with strychnin, to $\frac{1}{3}$ and $\frac{1}{2}$ grain a day, and found in about two weeks, that he could then give the patient $\frac{1}{2}$ grain of salicylate of mercury without salivation.

DR. G. H. FOX said he thought that iodid of potassium would certainly tend to heal these lesions more quickly.

DERMATITIS VENENATA. Presented by DR. OCHS.

The patient was an adult colored man, who worked in an ammonia plant, and presented an eruption of dermatitis venenata. When the case came to the speaker, the Friday previous, the face was covered with fine vesicles and he noticed it was then of a peculiarly yellowish color, which unfortunately could not be seen when the patient was shown. The back of his neck was covered with yellow lesions, also the upper part of the chest and his nails. The speaker said he had had two or three cases of that kind of skin poisoning. He called attention to the color of the patient's nails, which in the day time were distinctly yellow.

MILIARY PAPULAR SYPHILID. Presented by DR. WISE for DR. ROSEN.

The patient was a man, aged 33, unmarried, from Dr. Fordyce's clinic. He had had no chancre or any venereal disease. He presented a generalized eruption consisting of pinhead sized papules, some of them arranged in corymbiform groups; in some areas, especially on the back, the individual lesions were difficult to differentiate from a lichen planus eruption. There was no evidence of an initial lesion on the skin or mucous membranes. He had suffered from arthritis during the previous week. The eruption was of four weeks' duration and was accompanied by a moderate generalized adenopathy.

PITYRIASIS ROSEA IN A SYPHILITIC. Presented by DR. WISE.

The patient was a male adult and presented a well marked pityriasis rosea, located chiefly on the abdomen, thighs and buttocks. On the right side of the back, on the right flank and chest, were a series of depigmented smooth scars, the result of a healed nodulo-serpiginous syphilid, the distribution of which coincided with that of a herpes zoster eruption.

LICHEN PLANUS. Presented by DR. PISKO.

The patient was a colored male adult. The case was shown because of the lichen planus eruption, consisting of large groups and large papules, which were seen on the face and forehead—a rare localization. The lesions seen

on the forehead were of three years' duration. There were also lesions on the scrotum, legs, trunk and back of the neck. Itching was intense.

DISCUSSION

DR. SATENSTEIN said he would suggest chronic eczema and lichenification with acute eczema of the ears and neck, instead of lichen planus.

DR. WISE said he did not think this man had lichen planus, and would hesitate to call it prurigo on account of the age at which the patient had acquired it. Prurigo began in childhood and left pits and scars. Although the skin of the arms and legs resembled prurigo, he did not think it that condition and would call it a papulo-vesicular eczema, which had assumed a peculiar lichenification.

DR. HEIMANN (by invitation) said it looked like prurigo, but the history was against that. Brocq had in his numerous writings described what he originally called neurodermite, which subsequently changed to pruritus with lichenification. He described a type of the latter disease which occurred in numerous papules accompanied by areas of lichenification. The speaker said that was his point of view, and one might adopt it, if one did not want to use the term prurigo, Hebra. In any case the patient had a chronic, catarrhal, exudative inflammation with lichenification, and the speaker said a Latin name made less difference than the main underlying fact.

DR. G. H. FOX said that in view of the many cases of prurigo he had seen under Hebra and a few cases in America, he would not think of prurigo in this case any more than of varicella, on account of the pustules and umbilicated lesions. The speaker would not say that it was not a lichen planus, but about the ears and back of the neck and on the lip, there were undoubted manifestations of eczema, in a typical chronic form.

CASE FOR DIAGNOSIS. Presented by DR. OCHS.

The patient was a male adult, who was presented with a question of whether the condition was syphilis or tuberculosis. Eighteen years previously he had what he termed a carbuncle at the back of the neck, which was cut, leaving a large scar. From that time until about two years before presentation, he had comparative freedom from his carbuncles, having a few alternately on his wrists and legs, leaving scars. Two years previously a lesion started as a mass between the shoulder blades and ever since he had been getting quite a number of similar lesions. The treatment at that time was free excision and bichlorid dressings. In spite of that, the condition persisted, and on his hands, especially on the left hand, could be noticed small papulo-necrotic tuberculids. Also on the anterior surface of the chest, and on the back, as well as about the umbilicus were grouped lesions that were fungating, and at times putrid. He had a lot of scars on the legs, resembling the scarring of an old syphilis, some of which were stellate and others were small, not rounded, but oblong in character. The anal folds also presented a number of scars. Dr. Wise had also seen this case and suggested a diagnosis of fungating tuberculosis cutis and thought it the first case of its kind to be presented before the Society. A biopsy had been taken, which would be reported on. The Wassermann reaction was +. The patient had received arsenobenzol and the speaker thought the condition had improved since that time.

DISCUSSION

DR. WEISS said he would like to know if blastomycosis could be ruled out.

DR. WISE said he was unable to see any resemblance to either blastomycosis or syphilis in any of the lesions. He considered the entire eruption to be one of fungating tuberculosis of unusual type.

DR. HEIMANN (by invitation) said he was afraid that any opinion might be premature and misleading. In order to have a preparation ready that evening a small piece was run through very rapidly, reserving the rest of the material for more careful manipulation. However, so far as the slide went, there was nothing typical of tuberculosis in it, excepting in one respect, and certainly nothing typical of syphilis. There were no vascular changes as one would expect in processes that had been present as long as this. The features noted were as follows: The epidermis was very much thickened and edematous, otherwise there were no changes. The changes that they did find were in the papillary body and corium, and were localized to the lymphatics, both independent of and about blood vessels. In these lymphatics there was a proliferation of what would seem to be endothelial cells, in some places filling the lymphatics completely. The cells were slightly egg-shaped, or almost spherical. Thus there was a stasis, causing an outpouring of lymph among the collagen fibers, giving the picture of early local elephantiasis. There were no giant cells, a few epithelioid cells, no polynuclear cells and an occasional plasma cell. From the absence of large numbers of plasma cells and vessel changes, syphilis could be excluded. Because of the absence of giant cells the typical picture of tuberculosis was absent, and from the absence of polymorphonuclear cells it was easy to exclude blastomycosis and other fungous diseases. Thus the speaker thought they were probably dealing with that form of tuberculosis which Jadassohn described as beginning in the lymphatics and secondarily involving the skin. This form was that called tuberculosis fungosus. The possibility of the eruption being related to the leukemia group was also suggested by the lymphatic involvement. The speaker did not think that any definite conclusion was possible until further investigation was completed, but he was inclined to think that it belonged to the type of tuberculosis described by Jadassohn.

DR. GILMOUR said he would like to know from where the biopsy was taken. He asked if a piece had been taken from a smaller lesion.

DR. WISE suggested that several biopsies may be needed to demonstrate the tuberculous structural changes.

D. L. SATENSTEIN, M.D., Secretary.

Review of Dermatology and Syphilis

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ACTAS DERMO-SIFILOGRAFICAS

(February-March, 1917, 9, No. 3)

Abstracted by V. PARDO, M.D.

THERAPEUTIC ERRORS CAUSED BY MISINTERPRETATION OF THE WASSERMANN REACTION. J. DE AZUA, p. 109.

It is a well known fact that the Wassermann reaction is not always positive in cases of syphilis, and is frequently negative in cases of active syphilis, but nevertheless many physicians rule out syphilis as soon as they obtain a negative blood test. The author mentions several instances in which a negative Wassermann reaction led to the most terrible consequences; a man with a syphilitic sore of the lip was being treated for a carcinoma, but meanwhile he had infected his whole family (his wife, two sons, one daughter, one grandson and two servants), and this man had a negative Wassermann, which his physician thought a decisive argument against syphilis. Azúa concludes that it is necessary to have the test performed in a qualified laboratory and that a lesion, clinically syphilitic, must be treated specifically despite a negative Wassermann, giving the treatment a fair chance to clear up the diagnosis. It must not be forgotten that lupus, carcinoma, etc., may develop in syphilitic patients who give a positive blood Wassermann.

SYPHILITIC REINFECTIONS AND SUPERINFECTIONS. J. PEYRI, p. 119.

Not a long time ago, syphilis was considered to give everlasting immunity, but recently numerous cases of reinfection have been recorded showing that the disease may be acquired a second time. The author of this article believes that a syphilitic patient can be superinfected, that is, can contract a syphilitic sore followed by secondaries while still suffering from an anterior attack of the disease. According to Peyri a patient having had syphilis may present: (1) a recurrent chancre (chancre redux) as a demonstration that his treatment has not been sufficiently strong to destroy all the spirochetes in situ; (2) a chancrelike syphiloma (tertiary manifestation); (3) a superinfection (new attack of the disease while still suffering from one formerly contracted), and (4) a reinfection (a cured syphilitic acquiring the illness anew).

EPITHELIOMA DEVELOPED ON A SYPHILITIC GUMMA OF THE LEG. J. F. DE LA PORTILLA, p. 131.

Case report.

LATE HEREDITARY SYPHILIS OF THE NOSE. A. LEDO, p. 137.

Case report.

SECONDARY SYPHILITIC PHLEBITIS. J. SANZ, p. 140.

Case report.

BENIGN CYSTIC EPITHELIOMA. J. AZUA, p. 148.

Case report. The lesions, on the face of an elderly woman, developed malignant tendencies after prolonged treatment with radium.

SYPHILITIC MYELITIS OF ERB. J. F. DE LA PORTILLA, p. 150.

Case report.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE, DERMATOLOGICAL SECTION

(December, 1917, 40, No. 2)

Abstracted by W. H. GUY, M.D.

CIRCINATE ERYTHEMA. E. G. GRAHAM LITTLE, p. 1.

Recurring circinate lesions for five years were thought to be ringworm for some time, but repeated microscopic examinations were negative. The eruption appeared in the summer time and would clear up spontaneously in a few months. A pink papule was the first thing noticed; this spread peripherally and cleared to some extent at the center, the edges being raised. The thighs, abdomen, sacral region and buttocks were the sites of predilection. Moderate itching was complained of. An alternate diagnosis of erythema annulaire centrifuge (Darier) is offered.

LUPUS ERYTHEMATOSUS OF THE SCALP. E. G. GRAHAM LITTLE, p. 4.

The diagnosis of ringworm of the scalp being established clinically and supported by a positive laboratory report, epilation was accomplished by the roentgen ray and it was found that a typical eruption of lupus erythematosus was present and that it was aggravated and spread rapidly after the radiation. Patchy permanent alopecia resulted which the patient was inclined to credit to the roentgen rays. It is interesting to note that the patient stated that there was considerable redness of the parts before any treatment was applied. Dr. Pernet, in discussing the case, expressed some doubt as to whether the spores were ever present or not.

CONGENITAL ICHTHYOSIS. J. H. STOWERS, p. 7.

Ichthyosis sauroderma. A case report.

EXTENSIVE NEVUS. GEORGE PERNET, p. 9.

An extensive mildly verrucose nevus involving the corset area of the trunk and upper part of the thighs and buttocks, the fronts of the knees, with a boot and glove-like distribution about the feet and hands, the soles and palms being involved.

DERMATITIS DUE TO HIGH EXPLOSIVES. J. H. SEQUEIRA, p. 12.

Four cases were seen after the recent air raids. First, there was noticed a yellow staining and after about nine days there was an abundant vesicular eruption on the sides of the fingers and on the palms of the hands. The eruption became confluent and ultimately the epidermis peeled. A new explosive, now under investigation, is said to be the cause of this dermatitis, but the case report does not make clear whether direct contact with the explosive is necessary.

ARCHIVES OF PEDIATRICS

(December, 1917, 34, No. 12)

Abstracted by W. H. GUY, M.D.

STROPHULUS. DOUGLASS W. MONTGOMERY, p. 910.

The author describes the eruption as occurring in crops, spaced or overlapping, so that lesions in all stages of development may be present synchronously; nettle-rash wheals, papules, papulo-vesicles, and excoriated papules, scattered principally over the trunk, and to a less extent on the face and limbs. He notes that the condition has also been described under the name of lichen urticatus, of lichen simplex acutus, and of urticaria papulosa. Attention is directed to intestinal disorders as being etiologic, and treatment suggested accordingly.

INFANTILE SYPHILIS OF THE LIVER. EDWARD L. BAUER, p. 927.

A case report of interest, in that an infant born of apparently normal parents developed normally up to the eleventh month, when he suddenly became jaundiced; the abdomen was distended and pendulous; the veins on the anterior abdominal wall were distended; the liver was markedly enlarged with smooth and rounded edges; and considerable fluid was present in the abdomen. The diagnosis was made on finding that the mother's blood showed a positive Wassermann reaction, and necropsy findings in the child verified the clinical diagnosis of syphilis congenita.

AMERICAN JOURNAL OF SYPHILIS

(October, 1917, 1, No. 4)

Abstracted by C. C. TOMLINSON, M.D.

SYPHILIS OF THE PULMONARY ARTERY; SYPHILITIC ANEURYSM OF THE LEFT UPPER DIVISION; DEMONSTRATION OF SPIROCHAETAE PALLIDAE IN WALL OF ARTERY AND ANEURYSMAL SAC. ALDRED SCOTT WARTHIN, p. 693.

This article consists of a study of the macroscopic and microscopic pathology of syphilitic changes in the pulmonary artery with a review of the literature on the subject. A case is reported which had been studied clinically and which was later studied at necropsy and from laboratory specimens.

Changes in the pulmonary artery were found to be identical with those found in syphilitic aortas.

Spirochaetae pallidae were demonstrated in the walls of the pulmonary artery. The author concludes that syphilis of the pulmonary artery and syphilitic aneurysm of the pulmonary artery are definitely demonstrated as pathologic entities.

SOME OBSERVATIONS ON LATENT OR CLINICALLY INACTIVE SYPHILIS IN THE CANAL ZONE. GUY L. QUALLS, p. 712.

A Wassermann test survey of 1,198 colored surgical patients showed 23.7 per cent. syphilitic when there was no suspicion of syphilis and 36.7 per cent. when it was suspected—a grand total of 27 per cent. among all colored employees admitted to the hospital. A total syphilitic infection among the white surgical cases was 15 per cent., with 2.3 per cent. in the unsuspected cases. It is therefore seen that latent syphilitic infection in the colored male employees in the canal zone is exceedingly high.

A COMPARISON OF SOME OF THE IMPORTANT PHENOMENA IN SYPHILIS AND TUBERCULOSIS. FRANCIS M. POTTENGER, p. 718.

Points of contrast in tuberculosis and syphilis are brought out from the standpoints of the infectious agents, pathology, symptomatology, clinical characteristics and treatment.

THE BEHAVIOR OF THE LYMPHATIC SYSTEM IN SYPHILIS. DOUGLASS MONTGOMERY, p. 729.

The author reviews the physiology of the lymphatic circulation and describes the journey of the spirochete from the point of entrance on the surface, to the stage of general invasion. The slow progress of the disease (incubation period) is explained by the fact that the transmission of the spirochetes by way of the lymphatics is necessarily slow. The predilection of the spirochetes for the lymphatics is probably due to the small amount of oxygen found there. Immunity phenomena resulting from early diffuse infection explains the absence of lymphatic involvement in late syphilis.

SYPHILIS OF THE LIVER. H. L. McNEIL, p. 738.

Syphilis of the liver is divided into three types, namely, acute hepatitis, cirrhosis, and perihepatitis. The author describes the pathologic changes and clinical symptoms in each type.

THE CAUSES OF ARTERIAL HYPERTENSION, WITH SPECIAL REFERENCE TO SYPHILIS—A CLINICAL INQUIRY. JAMES S. McLESTER, p. 746.

From a group of 124 patients having a systolic pressure of 155 mm. or more, 17.5 per cent. had a positive Wassermann reaction. The author, however, does not agree that syphilis is the chief cause of arterial disease.

SYPHILIS AS A CAUSE OF CHRONIC URTICARIA. H. H. HAZEN, p. 750.

In a series of eighty-nine dispensary cases with chronic urticaria, twenty-eight gave positive Wassermann reactions. All of the twenty-eight patients were relieved of their urticaria by antisyphilitic medication. None of eighteen cases of chronic urticaria seen in private practice had a positive Wassermann, showing the greater frequency of syphilis as a cause of this condition in dispensary patients.

THE ADVISABILITY OF PROSTATECTOMY IN THE PRESENCE OF CORD LESION. E. S. JUDG, p. 752.

Investigation will often show that the patient had urinary difficulty prior to the prostatic age. One should first determine the relative degree of the symptoms of obstruction due to the enlarged prostate, and the extent of the cord lesion.

True incontinence is usually due to a cord lesion, and with the exception of trauma, tabes is the most common cause. If a cystoscopic examination shows the sphincter is functioning and that the symptoms are due to an enlarged prostate, it is proper to operate even though tabes is present. If there is clinical evidence of an advanced cord lesion, or incontinence due to weakness of the external sphincter, operation is contraindicated. The article is concluded with a number of case reports.

THE ROENTGEN DIAGNOSIS OF LUNG SYPHILIS. W. WARNER WATKINS, p. 760.

The roentgenographic shadows of lung syphilis are found to conform to the following types of the disease which are briefly described: (1) syphilitic consolidation; (2) early diffuse sclerosis, and (3) dense sclerosis. The article is supplemented by a number of illustrations and case reports and the author gives the marks of distinction between the roentgenographic findings of lung syphilis and the conditions with which it might be confused.

A PROPOSED STANDARDIZATION OF THE WASSERMANN REACTION. ARTHUR WILLIAM STILLIANS, p. 767.

The author proposes the use of a 50 per cent. glycerinized mixture of strong positive serum to be titrated with each test. It is also suggested that this control serum be supplied from a central depot under government control. Antigens must be standardized by titrating them with positive serums.

WASSERMANN REACTION IN FOUR HUNDRED CASES INVESTIGATED BY GROUP STUDY METHODS. E. V. KNAPP, p. 772.

The purpose of the author's investigation was (1) to determine the relative prevalence of the disease in the male and female; (2) the gross types of the disease present, and (3) the relative value of history, Wassermann reaction, and clinical examinations. A result of the study is tabulated in several charts and summarized by the author as follows: Men are five times more frequently syphilitic than women; the central nervous system shows demonstrable traces of the disease in 50 per cent of the cases; most cerebrospinal cases are males, and the most important single method of examination for syphilis is the physical examination.

A MODIFIED WASSERMANN TECHNIC BASED ON THE RAPID FIXATION OF COMPLEMENT PRESENT IN HUMAN SERUM. C. J. BARTLETT and A. L. O'SHANSKY, p. 776.

A tabulation of comparative findings with the routine Wassermann test and the author's modification in 900 serums, is submitted. The modification consists in the use of the natural complement and antishoop amboceptor found in the patient's serum and no preliminary incubation at 37 C. for complement fixation. The results as given show the modification to be more delicate and more reliable than the routine Wassermann test.

A FEW POINTS OF PUBLIC PROPHYLAXIS AGAINST SYPHILIS. A. RAVOGLI, p. 788.

The paper deals with a study of syphilis from a public health standpoint and a discussion of the methods of handling the various problems met. A most important consideration is hospital treatment of prostitutes with legal control over them, until manifestations have cleared at which time they may leave the hospital but must remain under sanitary surveillance.

THE TECHNIC OF THE COMPLEMENT FIXATION TEST FOR SYPHILIS. CHARLES F. CRAIG, p. 802.

The author gives a detailed description of the methods of preparing the different materials used in the test, also methods of performing the test. He uses guinea-pig complement, antihuman-blood amboceptor, alcoholic extract of fetal syphilitic liver, and human red blood cells.

NEW YORK MEDICAL JOURNAL

(*Nov. 24, 1917, 106, No. 21*)

Abstracted by C. C. TOMLINSON, M.D.

PROPHYLAXIS IN SYPHILIS OF THE CENTRAL NERVOUS SYSTEM. ISADORE ROSEN, p. 970.

Owing to the fact that involvement of the central nervous system takes place during the early secondary period, the author emphasizes the importance of routine lumbar puncture at this time as a guide for treatment.

A summary of the value of the different laboratory findings and a brief outline of the author's plan of treatment is given.

(*Ibidem, Dec. 1, 1917, 106, No. 22*)

WASSERMANN COMPLEMENT FIXATION TEST FOR SYPHILIS. J. WHEELER SMITH, p. 1030.

The article deals with a discussion of the literature on the choice of an antigen. The author calls attention to the experience of Smith and MacNeal, who found, using 496 serums, that a simple alcoholic extract with ice-box incubation, gave the most delicate and reliable results.

(*Ibidem, Dec. 8, 1917, 106, No. 23*)

TREATMENT OF SYPHILIS WITH ARSENOBENZOL POLYCLINIC. CHARLES H. J. BARNETT, p. 1073.

The author presents case reports and tabulations on his work with arsenobenzol, concluding his article as follows: 1. Arsenobenzol is the best and safest substitute for salvarsan and neosalvarsan. 2. It compares favorably with the results obtained in primary and secondary syphilis treated with salvarsan and neosalvarsan. 3. It is nontoxic whereas every one of the other substitutes such as arsenobenzol Billon (French) or the diarsenol (Canadian) are much more toxic and in some cases more so than even salvarsan. 4. It is best given in 0.4 gm. doses, once a week, until the Wassermann reaction becomes negative.

A CASE OF NASAL SARCOMA CURED BY RADIUM. OTTO J. STEIN, p. 1075.

Report of a case.

(*Ibidem, Dec. 15, 1917, 106, No. 24*)

CONDYLOMA ACUMINATUM IN THE ANAL REGION IN THE MALE. CHARLES E. HYDE, p. 1125.

Report of a case.

(*Ibidem, Dec. 22, 1917, 106, No. 25*)

SPORADIC PELLAGRA. M. E. ALEXANDER, p. 1174.

Report of a case.

MEDICAL RECORD

(Nov. 24, 1917, 92, No. 21)

Abstracted by C. C. TOMLINSON, M.D.

PELLAGRA: ITS ETIOLOGY, SYMPTOMATOLOGY AND TREATMENT. J. F. YARBROUGH, p. 892.

The author contends that pellagra is an acidosis, the result of a carbohydrate or alcoholic diet in which there is practically no protein. He is of the opinion that many cases are not diagnosed because they do not present typical symptoms and says that, "a red, sleek, or fissured tongue, indigestion, constipation or diarrhea, irritability or melancholia, with insomnia and persistent dreaming are sufficient symptoms to warrant a diagnosis of pellagra." About 25 per cent. of the author's cases did not present a dermatitis. Treatment consisted in elimination of carbohydrates from the diet, increasing the alkalinity of the blood through the use of dilute nitric acid, increasing elimination, and the use of blood or saline solution transfusion when the vitality is seriously impaired.

(Ibidem, Dec. 1, 1917, 92, No. 22)

HENOCH'S PURPURA. M. B. WESSON, p. 943.

Report of a case.

JOURNAL OF LABORATORY AND CLINICAL MEDICINE

(October, 1917, 3, No. 1)

Abstracted by OSCAR L. LEVIN, M.D.

THE WASSERMANN REACTION WITH LARGE AMOUNTS OF PATIENT'S SERUM. A. VAN SAUN, p. 61.

The writer tested seventy-four serums according to the Kromayer modification of the Wassermann reaction and found that the use of large amounts of human serum for the Wassermann test is not so reliable as when the ordinary amounts are employed.

(Ibidem, February, 1918, 3, No. 5)

METHODS OF CONTROL OF THE CLOTHES LOUSE (PEDICULUS HUMANUS VESTIMENTI). WILLIAM MOORE, p. 261.

The four methods which may be adopted for the destruction of lice may be summarized as: (1) the destruction of the lice by the vapor of a volatile organic compound worn by the patient as a sachet; (2) the use of louse powders; (3) impregnation of the underwear with an insecticide, and (4) the destruction by heat or fumigation of both lice and eggs in the garments while the patient is bathing.

The author made careful experiments to determine the efficiency of these methods. Sachets were shown to be unsuccessful. Powders are also unsuccessful since effective powders produce irritation when the patient perspires, while powders which do not burn are of no value. Impregnation of the underwear does not appear promising, but a cheese cloth suit impregnated with a saturated solution of sulphur in creosote could be successfully worn outside the underwear. Chlorpicrin can be used as a fumigant, penetrating the clothing and killing the lice in all parts of the clothing in fifteen minutes and the eggs in thirty minutes. By increasing the heat in the fumigation chamber, the temperature required to kill the eggs could be reduced.

THE ETIOLOGY OF SCARLET FEVER. R. W. PREYER and J. B. KELLY, p. 269.

The blood of nineteen of twenty-four patients suffering from scarlet fever showed the presence of a diphtheroid organism in pure culture. As the identical organism was obtained from the blood of normal individuals and from those with measles and diphtheria the writers do not claim that this organism is the cause of scarlet fever, but think it worthy of much further investigation.

UROLOGIC AND CUTANEOUS REVIEW

(October, 1917, 21, No. 10)

Abstracted by OSCAR L. LEVIN, M.D.

CANCER OF THE SKIN. A. RAVOGLI, p. 541.

Ravogli reviews the various theories concerning the etiology of cancer and narrates its symptomatology, pathology, prognosis and treatment when affecting the skin. It is his opinion that there is something hidden, perhaps a parasite, which stimulates the increased production of epithelial elements. Certain round bodies resembling protozoa have been isolated by him from cancer growths but he cannot state positively whether these are true protozoa or spores, or on the other hand, accidental or artefact globules. He describes an original method for the treatment of cutaneous cancer for which he claims happy results. The method of procedure consists in the removal of the malignant tissue by curettage, and the subsequent application of a mixture containing two parts of lysol, two parts of formaldehyd and one part of ferric perchlorid. The formaldehyd is supposed to destroy the parasites and disorganize the epithelial infiltrating cells; the lysol is used to affect the hyperplastic tissue surrounding the epithelial cells, and the ferric perchlorid to coagulate the blood and lymph, block the vessels and prevent the penetration and infection of the lymphatic system by cancerous cells.

A CONSIDERATION OF THE PATHOLOGY OF ECZEMA. HENRI GOUGEROT, p. 572.

Eczema is defined as a reaction of defense against epidermo-dermic edema, or inflammatory epidermo-dermatitis, provoked by the presence of a toxin, serving to dilute the toxin to the end that it may be less noxious. The pathology of eczema depends on three clinical facts: (1) an eczemazable field; (2) an irritation produced by an intoxication which may be either endogenous or exogenous, and (3) changes relative to a defensive reaction on the part of the organism.

The therapeutics can never be exclusively local. An effort must be made to determine and remove the predisposing underlying factor present. The local treatment should consist of antiphlogistic measures, inasmuch as eczema is from the beginning an aseptic inflammatory reaction.

SOME POINTS ON MALIGNANT SYPHILIS. CHARLES F. MARSHALL, p. 579.

The writer limits the term malignant syphilis to cases of rapidly developing ulceration occurring within a few months of infection, characterized by rapid destruction of tissue, resistance to antisypilitic treatment and a tendency to recur. He states that the reason why some cases of syphilis take on the malignant form must be looked for in the constitution of the patient or in the virus. It is possible that persons affected with malignant syphilis are those whose ancestors have been most free from the disease, that is, the

development of the disease on virgin soil. As regards the virus, there are two possibilities; especially virulent form or variety of the spirocheta, or a secondary infection with other organisms. Possibly both factors are concerned and malignant syphilis may be due to the infection of a comparatively virgin soil with a peculiarly virulent form of virus. Treatment should consist of local disinfection of the ulcers and the internal administration of tonics.

(*Ibidem*, November, 1917, 21, No. 11)

ELECTRO-THERMIC METHODS IN THE TREATMENT OF RODENT ULCER, WITH A REPORT OF AN UNUSUALLY ADVANCED CASE SUCCESSFULLY TREATED. WILLIAM L. CLARK, p. 601.

The author favors this method rather than surgery, roentgen ray or radium in the treatment of rodent ulcers.

SYPHILIS OF THE STOMACH. OLNEY A. AMBROSE, p. 633.

Syphilis of the stomach produces a diffuse infiltration in the areolar tissue, causing thickening of the gastric wall; local infiltrations in the mucosa and submucosa, forming miliary gummas which may necrose to form ragged edged ulcers; single or multiple nodules and tumors which may ulcerate, or perigastritis with thickening of the gastric wall and the formation of adhesions.

The clinical manifestations depend on the anatomic changes and are those of chronic gastritis, ulceration with or without obstruction, gastric tumor or gummas with or without obstruction, and perigastritis with involvement of adjacent structures.

The following symptoms, especially with a history of syphilis, are suspicious: severe gastralgia, gradual loss of weight, and loss of appetite in connection with symptoms of achylia. Gastric disturbance with a steady decline of the hydrochloric acid spells either malignancy or syphilis.

Three cases of gastric syphilis are reported in which the symptoms disappeared after antisiphilitic treatment.

(*Ibidem*, December, 1917, 21, No. 12)

SKIN DISEASES AND THEIR TREATMENT UNDER WAR CONDITIONS. HENRY MACCORMAC, p. 688.

Textbook descriptions are misleading when applied to cutaneous diseases as encountered under war conditions in France. Numerous unusual types of skin diseases are seen leading to difficulty and errors in diagnosis. This is especially true of scabies, which constitutes the most frequent cutaneous disease observed. Pediculosis is also very common and because of the itching and the similarity of the lesions produced by the pediculus, to those of the acarus, a differential diagnosis is often difficult. The greatest help in the differentiation of the two diseases is the absence of lesions on the penis in pediculosis. In scabies, interdigital vesicles rather than burrows should be sought for; impetigo of the buttocks is pathognomonic, and every patient with impetigo should be regarded with suspicion. Blankets are apparently the main source of transmission of the disease, while horses and venereal origin account for a small and negligible number.

True impetigo contagiosa is rare. Primary impetigo is found most often on the legs and results from the inoculation of abrasions and excoriations with the *Streptococcus fecalis*. It is ecthymatous in type, runs a prolonged course and is obstinate to treatment. The best method of treatment consists in the application of fomentations for several days, followed by the employment of perchlorid dressings as long as the skin will stand it. Painting the lesions with 3 per cent. silver nitrate in sweet spirits of niter, either alone or in

combination with the above form of treatment, has extraordinary, in some cases almost specific, action. The disease tends to pass through three stages, any or all of which may be present: (1) a dry erythematous-squamous condition; (2) eczematization characterized by the presence of weeping surfaces, usually limited to the scalp, and (3) from contamination with streptococci, a condition of impetiginization.

Seborrhea of the scalp is treated by shaving and the application of calamine liniment in the beginning and the more cautious use of more stimulating remedies in the later phases of the disease. Antiseptics seem to aggravate the disease. Treatment away from the face presents no difficulty.

Other cutaneous diseases are less common and present the usual features as observed in civil practice.

Special hospitals are provided for the treatment of syphilis.

PHYSICOTHERAPY OF THE SKIN. J. A. RIVIERE, p. 684.

The writer enumerates the various physical agents which have been found successful in the constitutional and local treatment of the dermatoses. He describes the indications for the employment of carbonic acid baths, thermotherapy, thermoluminous applications, static electricity, faradization, electrolysis, electropuncture, ionotherapy, hydro-electric baths, roentgen rays, mechanotherapy, high frequency sparks, and radium therapy.

CONTRIBUTION TO THE STUDY OF GRANULOMA FAVICUM. CARLO VIGNOLO LUTATI, p. 689.

As a result of his histologic examinations to determine the manner of formation of the atrophic scars in favus, the author concludes that there are two different forms of histogenetic processes in the development of the scars. One, the most common, is dependent on a chronic folliculitis and perifolliculitis of sclerotizing type. The other, very rare, depends on a granulomatous formation.

EDINBURGH MEDICAL JOURNAL

(October, 1917, 19, No. 4)

Abstracted by OSCAR L. LEVIN, M.D.

ON THE TREATMENT OF YAWS BY SALVARSAN AND ALLIED REMEDIES. RAOUL DE BOISSIERE, p. 226.

One hundred and eighty-two cases of yaws were treated with intramuscular injections of novarsenobenzol Billon, arsenobenzol-Billon and kharsivan (B. & W.). The ages of the patients ranged from five months to sixty-five years. The dose administered depended on the age of the patient. All the infants received 1 grain; children from one to four years, 2 to 3 grains; from four to eight years, 3 to 5 grains; from eight to twelve years, 5 to 6 grains, and from twelve to fifteen years, 6 to 8 grains. All patients from fifteen years and upward received a full dose of 10 grains. Considerable pain followed the injections of arsenobenzol Billon and kharsivan, which was relieved by local applications of hot cyllin fomentos of 1:400 strength, or carbolic acid 1:50. The lesions disappeared in 180 of the cases following the administration of a single dose. A considerable number, however, showed recurrences, especially among those who received the novarsenobenzol.

It is the opinion of the writer that if a sufficient supply of the drug were available to give each sufferer two or three injections, yaws would soon be eradicated in Fiji.

(Ibidem, December, 1917, 19, No. 6)

NOTES ON THE TREATMENT AND CONTROL OF VENEREAL DISEASES. WILLIAM ROBERTSON, p. 360.

A review of the modern methods for the treatment of syphilis with arsenic and mercury. It is emphasized that the two most important agents for the control of the disease are compulsory notification and the employment of calomel ointment for purposes of prevention.

THERAPEUTIC GAZETTE

(November, 1917, 41, No. 2)

Abstracted by OSCAR L. LEVIN, M.D.

SOME GENERAL CONDITIONS BEARING ON TREATMENT OF SYPHILIS. EDWARD MARTIN, p. 761.

The author reviews the subject of the treatment of syphilis. For mercurial medication he prefers the method by inunction and for injection he considers the soluble preparations safer and more efficient than the insoluble. He advises giving active treatment in courses for life. The general bodily health must be maintained and the following are described as indices of health: (1) psychic, the patient's cheerfulness and capacity for sustained and concentrated effort, either mental or physical; (2) body weight, which should be maintained unless excessive; (3) restful sleep; (4) normal appetite and digestion, and (5) normal output from the kidneys.

EPITOME OF THE PRESENT TREATMENT OF SYPHILIS. ALEXANDER RAMSDALL, p. 764.

A summary of our knowledge of the treatment of syphilis.

SOME CONSIDERATIONS ON THE MODERN TREATMENT OF SYPHILIS. CHARLES W. BONNEY, p. 767.

For the abortion of syphilis it is recommended that the patient receive four or five full doses of arsenical compound (0.6 gm. salvarsan or 0.9 gm. neosalvarsan). This is followed by a period of rest for from one week to ten days and intensive treatment with mercury. Twenty-five minims of cypridol, a French preparation, are injected into the gluteal region daily, until evidence of mercurialism appears. This method of treatment, with periods of rest, is continued until from twenty to forty injections of cypridol are administered. A Wassermann test is made at the end of two weeks. If the test proves positive the courses of treatment are repeated; on the other hand, if it is negative, courses of mild treatment are followed.

In the secondary stage, salvarsan is administered immediately but in smaller doses and with more caution because of the patient's decreased tolerance and the danger from the toxins liberated by the destroyed spirochetes. In late secondary syphilis iodine is given.

THE SMALL VOLUME METHOD OF ADMINISTERING NEOSALVARSAN. S. W. MOOREHEAD, p. 770.

It is claimed from a theoretical standpoint that the advantages of giving concentrated solutions of arsenical preparations are: (1) the lessened quantity of fluid added to the content of the cardiovascular system, and (2) a reduction in the impurities which may be injected. From a practical standpoint the

advantages are: (1) a lessening of the toxic effects of the medication; (2) a reduction in the size of the needle, and (3) greater ease of administration.

The alleged disadvantage of the method, that the rapid injection of a concentrated dose is injurious, is avoided by injecting the solution slowly at the rate of 1 c.c. in twenty seconds, so that the medication is diluted by the blood as it flows through the point of the needle.

VIRGINIA MEDICAL SEMI-MONTHLY

(Dec. 21, 1917, 22, No. 18)

Abstracted by OSCAR L. LEVIN, M.D.

CERTAIN MARKS IN THE DIAGNOSIS OF ACQUIRED SYPHILIS.

R. M. LE COMTE, p. 447.

Stress is laid on the value on the dark field illumination examination for spirochetes in suspected lesions and the Wassermann serum reaction in the diagnosis of syphilis.

CANADIAN PRACTITIONER AND REVIEW

(September, 1917, 43, No. 9)

Abstracted by OSCAR L. LEVIN, M.D.

THE VALUE OF THE WASSERMANN REACTION IN THE DIAGNOSIS AND TREATMENT OF SYPHILIS, WITH SOME REMARKS ON THE TREATMENT OF SYPHILIS. A. SCHUYLER CLARK and R. S. NELSON, p. 345.

Book Review

THE INFLUENCE OF SUNLIGHT IN THE PRODUCTION OF CANCER OF THE SKIN. By C. NORMAN PAUL, M.B., CH.M., Hon. Assistant Physician for Diseases of the Skin, Sydney Hospital; Hon. Physician for Diseases of the Skin, Renwick Hospital for Infants, Sydney; Hon. Dermatologist, Royal Alexandra Hospital for Children, Sydney; Hon. Dermatologist, Royal North Shore Hospital, Sydney. H. K. Lewis & Co., 136 Gower St., London W. C. L., 1918, 10/6 net.

One is likely to be disappointed in this book because the attractive title is not properly supported by the text. The work consists almost entirely of a very excellent description of the clinical symptoms, histology, prognosis and treatment of cutaneous epithelioma, with a similar but short discussion of xeroderma pigmentosum and precancerous lesions.

The book consists of 57 pages of text divided as follows: The introduction consists of two pages. In this chapter the author calls attention to the fact that the pigmented races in the tropics rarely have cutaneous epithelioma while the white races of Australia are very prone to such lesions especially on the exposed parts.

The second chapter, 3 pages, gives the usual text-book description of xeroderma pigmentosum. No special point is made regarding the influence of light.

The third chapter deals with rodent ulcer and occupies 12 pages. The author calls the basal-cell epithelioma rodent ulcer and employs the term epithelioma to signify the prickle-cell variety. The only item in the chapter to suggest that rodent ulcer may be caused by light is the fact that the disease shows a predilection for the face. Why it does not occur more often on the hands, the neck, forearms, etc., is not explained.

The fourth chapter, 5 pages, discusses dermatitis solaris chronica. This is the condition commonly called sailor's skin or farmer's skin in this country. The author also includes seborrheic and senile keratoses when occurring on the face. Tropical skin is differentiated, although we fail to find any difference.

Three pages are devoted to cutaneous horns which show a predilection for exposed parts.

"Multiple rodent ulcer" is described separately. It is apparently not seen as often in Australia as in this country. The author considers it to be of nevoid origin although the sun might be an etiological factor. Three pages are given to Brooke's epithelioma adenoides cysticum but no claim is made for an actinic etiological factor although it is pointed out that the disease is usually seen on the face. The last 8 pages are devoted to epithelioma (prickle-cell variety).

There are 43 excellent photographs divided as follows: rodent ulcer, 19; dermatitis solaris chronica, 6; cutaneous horn, 2; multiple rodent ulcer, 8; epithelioma adenoides cysticum, 1; tropical skin, 2; malignant epithelioma, 7.

The book is well printed and well bound. It was written with the object of bridging a gap in dermatological text-books. This it fails to do. It is an excellent résumé of what we already know about these diseases and calls attention to the fact that exposure to sunlight may produce dangerous lesions. It is our opinion, however, that a book possessing the title given to this one should discuss the action of light on the skin rather than giving the well-known text-book details of the diseases themselves. No mention is made of susceptibility or idiosyncrasy, the roentgen ray and radium sequelae are not discussed and while the natural reaction and defense on the part of the skin to light is mentioned, it is not studied or discussed at length.

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Original Communications

CONCERNING BRUCK'S NITRIC ACID REACTION WITH SERUM AND CEREBROSPINAL FLUID IN SYPHILIS *

IKUZO TOYAMA, M.D., AND JOHN A. KOLMER, M.D.
PHILADELPHIA

Recently Bruck¹ has described a simple chemical reaction in syphilis which he believes may be due to the same changes in the serum as are responsible for the phenomenon of complement fixation, and may prove of value in conjunction with the Wassermann reaction as a specific aid in the diagnosis of syphilis. The technic of the test is extremely simple and based on the experimental observation that the precipitate formed from the serum of a syphilitic on the addition of nitric acid, does not dissolve in distilled water as readily or as completely as the precipitate formed with normal or nonsyphilitic serums.

With about 200 syphilitic serums, Bruck found that his test yielded the same results as observed with the Wassermann reaction. Only three Wassermann positive serums, from one latent and two secondary cases, gave negative nitric acid reactions. On the other hand, one case of congenital syphilis and one tertiary case gave positive nitric acid reactions, although the Wassermann test was negative. Of about 200 nonsyphilitic patients, all were negative except four cases of old infected wounds of knee and thigh, and one case of tuberculosis. As all of the latter patients were febrile, a positive reaction with the serum of a febrile patient is regarded as unreliable. As far as we are aware, neither Bruck nor others who have employed his test have recorded experiments with cerebrospinal fluid; we have included in our study fluids from syphilitic patients and particularly from well developed cases of paresis, also from persons suffering with meningococcic meningitis, with negative results in all, due to the complete

* From the Dermatological Research Laboratories of the Philadelphia Polyclinic, Dr. Jay F. Schamberg, Director.

1. Bruck, C.: Eine Sero-Chemische Reaktion bei Syphilis, München. med. Wchnschr., 1917, 64, p. 25.

solution of the precipitate formed when the nitric acid reagent was added to not only 0.5 c.c. of fluid but multiples thereof up to 2 c.c.

Smith and Solomon² have reported their results with the serums of 405 cases and insist on several refinements of technic not emphasized by Bruck. In 101 of their cases there were definite clinical manifestations of syphilis in which the Wassermann and Bruck tests agreed positively in seventy-four, or 75 per cent. The two tests agreed negatively in twelve instances and were at variance in fifteen. In the group which showed syphilis of the nervous system there were sixty-four cases of clinically certain general paresis, of which the Wassermann and Bruck tests agreed in fifty-four instances, or practically 85 per cent. In other forms of central nervous system involvement the agreement was 100 per cent. in fifteen cases tested. In the cases with no apparent involvement of the nervous system the agreement was somewhat less, being 76 per cent. This was considered to be in keeping with the fact that the Wassermann test was not so strongly positive in these cases. The authors considered the advantages of the test to be: (1) the short time required to perform the test; (2) the limited amount of apparatus necessary, and (3) the simplicity of the technic. The disadvantages of the test seemed for the most part, to be bound up in the personal variations that were apt to occur. Stillians³ applied the test with the serums of 209 cases. In fifty-three of these, more than 25 per cent., the results disagreed with those of the Wassermann reaction. In thirteen cases of active early syphilis, in all of which the Wassermann reaction was very strongly positive, the new test was negative; on the other hand, 24 per cent. of seven of seventy-four nonsyphilitic patients gave positive Bruck reactions, and the author regards the test as useless for diagnostic purposes.

EXPERIMENTAL

Technic.—We have applied Bruck's test with the serums of 100 persons, the majority of whom were under treatment in the syphilis clinic of Dr. Jay F. Schamberg, with the following technic as described by Bruck:

(a) Clear corpuscle-free serums were employed. Opalescent serums as those obtained by bleeding shortly after a meal, also serums deeply tinged with hemoglobin or contaminated with bacteria are regarded as unsatisfactory and were not employed. Practically all serums were used in a fresh active condition and also after heating or inactivation at 56 C. for thirty minutes.

2. Smith, C. E., and Solomon, H. C.: The Bruck Sero-Chemical Test for Syphilis, Boston Med. and Surg. Jour., 1917, 177, pp. 321-324.

3. Stillians, A. W.: The Bruck Precipitation Test for Syphilis, Jour. Am. Med. Assn., 1917, 69, pp. 2014-2016.

(b) In conducting the test 0.5 c.c. serum was placed in a large perfectly cleansed test tube and 2 c.c. of sterile distilled water added, followed by gentle mixing to avoid frothing. The exact time being noted with a watch, 0.3 c.c. of a 25 per cent. dilution of C. P. nitric acid with a specific gravity of 1.149 was added,* the mixture gently shaken and stood aside at room temperature (about 15-18 C.) for exactly ten minutes. While the acid was being added, the tube was gently shaken, to prevent the formation of a precipitate with normal serum which dissolves with difficulty. Bruck has emphasized the necessity of accuracy in measurement of serum and reagent and strict observance of the time limits; if more than ten minutes are allowed for precipitate formation, a larger time is required for its solution in the following step, resulting in confusion in the interpretation of results. For this reason the serologist should not attempt to conduct more than twelve tests at one time.

(c) To the white precipitate was now added exactly 16 c.c. of distilled water, the test tube capped with a finger and carefully inverted three times without the production of a froth. After standing ten minutes the tube was again capped and carefully inverted three times.

(d) After standing at room temperature for half an hour, the reactions were read. With normal serum the precipitate is supposed to dissolve completely, the water being clear or slightly opalescent; with syphilitic serums small flakes are supposed to be present which show little or no tendency to dissolve. Bruck suggested that readings are facilitated if the tubes are allowed to stand from several to twelve hours when the precipitates may gravitate to the bottom of the test tubes; we made preliminary readings and allowed the tubes to stand over night when the final readings were made. Tubes showing a well defined sediment were read as positive; those showing only a slight sediment ("kleine Kuppe") as doubtful, and tubes with no sediment and clear or slightly opalescent water as negative. With well defined positive or negative reactions, we experienced no difficulty in reading the results of the tests, but not infrequently the doubtful reactions were puzzling and read differently by different persons.

(e) With the cerebrospinal fluids the same technic was employed except that in addition to using 0.5 c.c. as in the serum test, we have used larger amounts up to and including 2 c.c. of fluid. The amount of precipitate produced with the largest amount of spinal fluid containing large amounts of protein as from persons suffering with menin-

*The nitric acid of the U. S. pharmacopeia contains 68 (British pharmacopeia 70) per cent. by weight of concentrated acid and a specific gravity of 1.403. A 25 per cent. dilution with a specific gravity of 1.149 is prepared by diluting 100 c.c. of the acid with 225 c.c. of distilled water.

gococcic and pneumococcic meningitis, was invariably dissolved within a few minutes after the addition of distilled water, rendering the water clear or but slightly opalescent and thereby yielding negative reactions.

(f) All serums and spinal fluids were tested for the Wassermann reaction with three different antigens, namely, an alcoholic extract of beef heart reenforced with cholesterin, an alcoholic extract of syphilitic liver, and an extract of acetone insoluble lipoids of beef heart.

RESULTS

(a) *Comparison of Results with the Wassermann and Bruck Tests.*—The results with 94 serums in both tests were as follows: the Bruck tests were conducted with fresh unheated serums and the results read after standing overnight:

1. With fifty-eight serums, or about 62 per cent., the Wassermann and Bruck tests were positive; these figures include the weakly and strongly positive reactions with both tests. All of these reactions occurred with the serums of frankly syphilitic persons, the majority manifesting the lesions of the late secondary or tertiary stages of the disease and undergoing treatment with arsphenamin (arsenobenzol*).

2. With seven serums, or about 8 per cent., the reactions were negative with both tests and the patients presented no clinical evidences of syphilis. *Both tests agreed therefore with 65 serums, or about 70 per cent.*

3. With twenty-three serums, or about 25 per cent., the Wassermann reactions were negative with all antigens and the Bruck tests positive (strongly positive in sixteen and weakly positive in seven); these results call for further analysis.

With eight serums the patients exhibited no clinical evidences of syphilis and the histories were negative (although we have learned to place little reliance on a negative history), and, presumably, the Bruck test yielded a falsely positive result.

With fifteen serums the patients were frankly syphilitic and undergoing vigorous treatment with arsphenamin (arsenobenzol); eight of these persons presented the lesions of secondary syphilis at the time of entering Dr. Schamberg's clinic and the balance may be classified as being in the tertiary stage of the disease. All of these persons had received from two to nineteen intravenous injections of arsphenamin (arsenobenzol), and all had exhibited positive Wassermann reactions on entering the clinic and at a date prior to the time when the Bruck tests were conducted. It would appear therefore that the

* Prepared in the Dermatological Research Laboratories of the Philadelphia Polyclinic by Drs. Jay F. Schamberg, George W. Raiziss and John A. Kolmer.

property of syphilitic serum responsible for the Bruck reaction disappears more slowly under treatment than the antibody or reagin involved in the Wassermann reaction.

4. With the serums of six persons, or about 6 per cent., the Wassermann tests were positive and the Bruck tests read as negative. Four of the patients were in the secondary stage of syphilis and had received from three to eight injections of arsphenamin; the remaining two were in the tertiary stages and had received two and three injections of arsphenamin, respectively.

(b) *Comparison of Results of Bruck Tests with Fresh Unheated and Heated Serums.*—Bruck states that a serum yields the same results in his test whether heated or unheated; Stillians tried 115 serums before and after heating and observed the same result in ninety-eight. Of the seventeen serums yielding different results, fourteen gave a positive reaction in the active state and negative after inactivation, while the reverse occurred with three serums. That these differences were not all accidental, is indicated according to Stillians, by the fact that a repetition of these tests in many instances gave exactly the same result.

We have tested the serums of eighty-nine persons in the fresh unheated state and at the same time immediately after heating in a water bath at 56 C. for one-half hour with the following results:

1. With seventy-six serums, or about 85 per cent., the results were similar.

2. With twelve serums, or about 13 per cent., the Bruck tests were positive with fresh unheated serum and negative after heating; these results are quite similar to those reported by Stillians. Three of these serums were from cases of secondary syphilis after receiving from one to eleven injections of arsphenamin and showing positive Wassermann reactions in two and negative in one, while the remaining nine cases were classified as presenting tertiary lesions and had received from six to twenty injections of arsphenamin, with positive Wassermann reactions with four and negative reactions with five of the serums. The reverse was found with the serum of one person in the tertiary stage of the disease presenting a positive Wassermann reaction and receiving no treatment at the time the tests were conducted; opportunity was not afforded for repeating the tests with the serum of this person.

It would appear, therefore, that fresh unheated serum is better adapted for the Bruck test than heated serum.

(c) *Comparison of Results of Bruck Tests Read Immediately and After Standing at least Twelve Hours.*—As previously stated, Bruck claims that the reading of the results of his test is facilitated by per-

mitting the tubes to stand at room temperature for at least twelve hours before reading the results; our experience is in accord with his in that the readings are easier and more regular after the tubes had stood for sufficient time to permit the precipitate to collect on the bottom of the test tube.

The results of tests with ninety-two fresh and unheated serums read at the end of one-half hour after setting up and again after standing over night, have shown the following:

1. With eighty-seven serums, or about 94 per cent., the results were similar insofar as + or — were concerned; in several instances a reaction was recorded as \pm in the preliminary reading and + the following day or vice versa.

2. With five serums, or about 6 per cent., the preliminary reading was + and the final reading next day as —; all serums were from secondary cases of syphilis yielding positive Wassermann reactions with four, and after receiving from two to ten doses of arsphenamin.

SUMMARY

1. Wassermann and Bruck tests with ninety-four serums (the Bruck tests being conducted with fresh active serums) yielded similar results with sixty-five serums, or about 70 per cent. All of the positive reactions with both tests occurred with the serums of persons manifesting the lesions of the secondary and tertiary stages of syphilis and undergoing treatment with arsphenamin (arsenobenzol of the Dermatological Research Laboratories).

2. With the serums of twenty-three persons, or about 25 per cent., the Wassermann tests were negative and the Bruck tests positive; eight of these serums were from persons regarded as nonsyphilitic and the balance (fifteen) from persons in the secondary and tertiary stages of syphilis undergoing vigorous treatment with arsphenamin and yielding positive Wassermann reactions on admission to the clinic and prior to the time when Bruck tests were made. According to these results, therefore, the Bruck test was found to yield presumably about 8 per cent. falsely positive reactions; also that the property of syphilitic serum responsible for the Bruck test probably persists under treatment for a longer period than the reagin or Wassermann antibody.

3. With the serum of six persons, or about 6 per cent., the Wassermann tests were positive and the Bruck tests regarded as negative; all of these serums were from persons presenting the lesions of the secondary and tertiary stages of syphilis on entering the clinic and undergoing active treatment with arsphenamin.

4. The results of Bruck tests conducted with eighty-nine serums in the fresh active state and again after inactivation (heating) showed

similar results in 85 per cent.; in 13 per cent. the reactions were positive with active and negative with inactive serum; all serums were from cases of secondary and tertiary syphilis undergoing treatment. It would appear, therefore, that active serum is better adapted for the Bruck test than inactivated serum.

5. Preliminary and final readings of the Bruck test agreed in 94 per cent. of serums; with 6 per cent. of serums the reaction was read as positive in the preliminary and negative in the final reading. These serums were from persons in the secondary stage of syphilis and undergoing vigorous treatment; it would appear, therefore, that the precipitate yielding a positive result in the preliminary reading may dissolve over night and thereby render a negative result in the final reading. For this reason the preliminary reading is considered more delicate but more difficult to interpret and differentiate from the opalescent reactions sometimes yielded by normal serum.

6. Bruck tests conducted with cerebrospinal fluids in amounts ranging from 0.5 to 2 c.c. were invariably negative irrespective of the source of fluid as from normal persons or those suffering with syphilis of the central nervous system and suppurative meningitis; owing to the relatively small amount of precipitable substance in spinal fluid even in the largest amount employed, and from inflamed meninges, as compared with serum, the Bruck test is worthless as an aid in diagnosis.

7. While the Bruck serochemical test is very simple, of great interest theoretically and probably of more value than the numerous other physicochemical tests of Porges and Meier, Klausner, Herman and Perutz and others, the reactions are less well defined and more difficult to read and more prone to error on the personal equation than the Wassermann reaction and, likewise, probably less delicate and valuable as a diagnostic reaction than the Wassermann test when the latter is properly conducted by experienced persons.

CHEMICAL CHANGES IN THE SUBCUTANEOUS FAT IN SCLEREMA NEONATORUM *

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Because of the relative infrequency of sclerema neonatorum, there have been few opportunities afforded for its study. Of the cases reported, only a few contain chemical data. This, no doubt, is explained by the fact that each case yields only a small amount of material for analysis. Further, several determinations of each analytic constant must be made in order to insure a reasonable degree of accuracy. It becomes evident, then, that each case of the disease can at best furnish only a small contribution to the total sum of information needed to explain what takes place.

REVIEW OF LITERATURE

One of the earliest studies of subcutaneous fat in normal and scleremic infants was made by Langer¹ in 1881. He found normal infant fat to be a fairly solid mass, melting at 45 C., while that of adults at room temperature was almost entirely fluid, solidifying only at 0 C. The infant fat contained about 31 per cent. of the solid fatty acids, principally stearic and palmitic, but that of the adults contained only 10 per cent. of these acids. He noted that the body temperature of the infants was from 37.73 to 37.80 C., or slightly higher than the normal adult temperature. Langer believed that the scleremic condition in infants was due to the fact that the body temperature was not sufficient to keep the fats in solution. He suggested that the lowering of the body temperature might be due to improper clothing or exposure to cold air or water.

In 1897, Knopfmacher² made a very careful study of the chemical constituents of infant fat. He laid particular stress on the iodine absorption of fat, and tabulated this value, together with the melting and solidifying points for infant fat from birth until one year. As a result of his experiments, he concluded that the fat in the panniculus adiposus at the end of the first year has the same oleic acid content as that of an adult, and that, from this time on, it remains fairly constant. Because of this gradual increase in oleic acid, he claimed that sclerema was seldom possible after the second, and never possible after the

* From the Laboratory of Physiological Chemistry, College of Medicine, University of Illinois.

1. Langer: Wien. med. Presse, 1881, 22, p. 1375.

2. Knopfmacher: Jahrb. f. Kinderh., 1897, 45, p. 177.

sixth month. Knopfmacher believed sclerema to be due to a loss of fluidity of the body fat and to the lowering of the body temperature. Young infants were believed to be particularly susceptible because of the higher melting point of their fats.

In his investigation of the fat of infants and of the fat content of the liver in gastro-enteritis, Thiemich³ found, as did Knopfmacher, that the fat of a newly born, well nourished infant was richer in oleic acid than that of a poorly nourished infant. He was unable to find any parallelism between the general constitution and the oleic acid content of the subcutaneous fat.

In 1905, Miura⁴ was able to obtain material enough for a chemical study of the subcutaneous fat of an infant dying of sclerema neonatorum. At the same time, he made a study of the tissue of a mature new-born child. He found 41.31 per cent. oleic acid in the fat of the normal child and 40.32 per cent. in the fat of the scleremic child. Miura concluded that the fat of scleremic infants did not differ materially from the fat of normal infants of the same age. He believed, however, that the subcutaneous tissue of the newly born was structurally predisposed to undergo hardening at a lower temperature than that of an older child, but that the actual cause of this hardening had yet to be found.

Sarvonat⁵ in 1906 reported a case of sclerema neonatorum in which the body temperature was at no time below normal, and on several occasions was much above the normal temperature. Together with his clinical report, he published the result of an analysis of the subcutaneous fat, which briefly was as follows:

Melting point 23 C.
Iodin Number (Hubl) 43

Oleic acid constituted 56 per cent. of the fatty acids obtained. These properties are not strikingly different from the fat of normal infants of the same age. Sarvonat concluded that neither the body temperature nor the oleic acid content would explain the hardening of the tissues.

Bayer⁶ reported two cases of twins in which one twin in each set was scleremic. One of the normal infants died from asphyxia and the fat obtained from it was used in control experiments. Briefly, Bayer's findings for scleremic infants were as follows:

Determination of the solidifying points yielded inconsistent results. The melting points showed a pronounced increase above the normal, being in one case 52 C. and in the other 70. The oleic acid content in these two cases was

3. Thiemich: *Ztschr. f. physiol. Chem.*, 1898, 26, p. 189.

4. Miura: *Japan. Ztschr. f. Dermat. u. Urol.*, 1905, 5, p. 412.

5. Sarvonat: *Arch. de med. des enfants*, 1906, 9, p. 22.

6. Bayer: *Verhandl. d. deutsch. path. Gesellsch.*, 1908, 12, p. 305.

between 23 and 24 per cent. The control determinations showed a solidifying point of 17 C., melting point 35, oleic acid content 62 per cent., equals iodine number 47 (Hubl).

In another case of scleremic twins in which both came to necropsy, Bayer found the oleic acid content to be from 35 to 38 per cent. As a result of his determination, he concluded that sclerema neonatorum was due to a lack of oleic acid, but was unable to say what brought about this change.

Aside from these analyses of infant fats in cases of sclerema neonatorum, there have been results of normal fat analyses reported. A study was made of the analytic constants of human fat by Mitchell.⁷ He concluded that human fat consisted of 70 per cent. liquid acids, principally oleic, and 30 per cent. solid acid, probably palmitic with small amounts of stearic and myristic. It might be added that his separation of the fatty acids was probably faulty, because of imperfect methods.

A similar study of human fat was made by Jaeckle⁸ in 1902. He found adult human fat to consist essentially of simple glycerids of oleic, palmitic and stearic acids. He could not detect traces of other lower fatty acids. The composition of human fat was found to be subject to wide variation. He noted also that there was a marked difference between the fat of infants and that of adults, in that the former was richer in solid fatty acids and poorer in oleic acids than the latter.

AUTHOR'S CASE

The case which affords the material for this paper was that of a child who contracted sclerema on the fifteenth day and who succumbed five days later. The necropsy revealed no pathologic condition other than that of the subcutaneous tissue. The most marked scleremic area was about the right cheek. As much as possible of the normal and abnormal tissue was dissected out and dried in a desiccator over calcium chlorid. This dried material was then extracted with ether in a glass-stoppered bottle at room temperature. From time to time, the ether was changed and finally the total ethereal extract in each case was allowed to evaporate spontaneously. The residue was then dried in a desiccator over calcium chlorid. Because of the small amount of material (15 gm.) available, only a few determinations could be made. The following were selected: melting point (Wiley method), iodine number (Hubl), saponification, and acid numbers.

The normal fat yielded fairly consistent results in the determination of the melting point. The abnormal fat did not show a sharp

7. Mitchell: *Analyst*, 1896, 21, p. 171.

8. Jaeckle: *Ztschr. f. physiol. Chem.*, 1902, 36, p. 53.

melting point, but seemed to consist of two fats, one melting around 33 C. and the other at about 38 C. This may be due to the fact that in the abnormal area not all of the fat was completely changed. A series of five determinations on both the normal and abnormal fats failed to reveal any appreciable difference in the iodine numbers. The fats could not be differentiated by their saponification numbers because there was not sufficient difference in the values obtained. There was, however, a marked difference in the acid numbers of the two fats, that of the abnormal being much higher. Duplicate determinations were made only in the case of these last two constants, as material was not available for a more extended study.

The results obtained are summarized in the accompanying table, together with similar data from the literature.

RESULTS OF CHEMICAL CHANGES IN TISSUE IN SCLEREMA

Scleremic Infant					
	Melt. Point	Iodin No.	Sap. No.	Acid No.	
Normal	33.96	44-46	193	79	
Abnormal	37.5	44-48	190	163	
Human Fat Constants					
Age	Melt. Point	Iodin No.	Sap. No.	Acid No.	Observer
New born	43	38.7	...	....	Knopfmacher
Infant*	23	43	...	....	Sarvonat
Adult	17.5	62	195	6.3	Mitchell
New born .....	..	43.4	...	....	Thiemich
New born .....	..	47.3	204	.72	Jaekle
Adult .....	..	62-69	193-199	.39-1.036	Jaekle
*Sclerema.					

COMMENT

Inspection of the table shows that the iodine value found for the abnormal fat is practically the same as that found for the normal fat, and approximates closely the values reported by other investigators. From this, it may be safely assumed that the pathologic condition is not due to the absence of oleic acid. The acid values found for both the normal and the abnormal fat are higher than those recorded by other authors. The reason for this is not clear, but it may be due to individual variation. As the two samples were kept under the same conditions, however, and treated exactly alike, it is the relative difference between them that is the important factor. The results obtained show that the abnormal fat had undergone a marked hydrolysis.

A somewhat similar case in which the subcutaneous fat underwent hydrolysis was reported by Fabyan.⁹ His was a case of a well nourished colored infant, in whom there occurred multiple areas of fat necrosis in the subcutaneous tissue without any apparent involvement of the pancreas. The case Fabyan reported as fat necrosis differed in symptoms from sclerema neonatorum only in that the involved areas were more disseminated.

9. Fabyan: Bull. Johns Hopkins Hosp., 1907, 18, p. 349.

SUMMARY

The subcutaneous fat taken from an involved area in an infant who succumbed to sclerema neonatorum was found to be higher in fatty acid content than that of the normal tissue of the same child. There was no indication of any difference in the oleic acid content of the two fats. These findings would hardly justify a conclusion as to the cause of sclerema neonatorum, although they seem clearly to indicate that the change taking place is similar to fat necrosis and is not due to the absence of oleic acid.

The writer acknowledges his indebtedness to Prof. F. G. Harris for the material with which to carry on this investigation and for the clinical data contained therein.

THE TREATMENT OF SYPHILIS AT CAMP TRAVIS *

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With lay and professional magazines regaling their readers with stories of inefficiency, suggestions, criticisms and much misinformation—each author having the only solution for problems that confront the nation—it seems appropriate to say something about what is actually being accomplished and how it is being done. Each branch of the service has troubles peculiar to itself, the medical being no exception to the rule. The size of the task before us is not appreciated by any one not engaged in the work. Men are taken from every conceivable environment and walk of life and thrown together for the purpose of intensive military training, so that it is not surprising that every surgical and medical specialty finds its ability taxed to handle its quota. It is the purpose of this paper to give some idea of the work accomplished at Camp Travis, Texas, in the treatment of syphilis.

PROPHYLAXIS

Antisymphilitic treatment very appropriately begins with prevention of infection, every agency that tends to lessen the frequency of venereal disease being included. Just how much credit to place to any one factor is difficult to estimate—suffice it to say that the results obtained are most gratifying. Ninety-nine and the greater portion of the remaining 1 per cent. of syphilis was brought into the army by the draft. The few cases contracted since entering the service interest us most because they are preventable. Cleaning up the district has undoubtedly prevented many a venereal infection, as have also the activities of the vice squad. Alcohol has ceased to be a factor in the predisposition to venereal infections. Clean sports and entertainment for hours off duty have helped. Much has been accomplished by personal talks to the men explaining the dangers of venereal diseases. For the benefit of the man who disregards repeated warnings, certain measures are instituted; he is required to report as soon as possible to a prophylaxis station where, after thorough cleansing, one of the silver salts in solution of suitable strength is injected and held in the urethra for at least five minutes, after which 30 per cent. calomel ointment is applied externally with vigorous massage. We are informed that this is an effective prophylactic in 90 per cent. of cases. Records

* Permission to publish this report has been obtained from the Surgeon-General.

are kept of the date and hour of exposure and the date and hour of the prophylaxis in each case. Frequent venereal inspections are held, and men found with infections who have not taken prophylaxis are tried and punished by court martial. To date about 10,000 prophylactic treatments have been administered, and a fairly accurate check made on the results.

TYPES OF CASES TREATED

There have been 105 cases of venereal disease at this camp acquired since entering the service; of these, fifty-seven did not have prophylaxis. This record covers a period of about seven months. Contracted prior to enlistment we have seen about 3,000 cases, but the number of venereal patients is necessarily much larger, the reported cases representing only those with active manifestations. There certainly are a great many cases of chronic infection that we have not seen, and it seems logical to believe that some of the reported new venereal infections are but exacerbations of old conditions. The venereal wards are crowded with infections that existed prior to entering the service. Of syphilis, I rarely see a case acquired since entering the army.

EARLY DIAGNOSIS

By virtue of an early diagnosis and the prompt institution of vigorous specific treatment many a case of syphilis has undoubtedly been cured before the infection became generalized. To accomplish this, considerable cooperation between the various regimental infirmaries and the department of syphilology was necessary. Regimental surgeons were asked to refer every venereal ulcer for a dark field examination before any treatment was applied, every one being cautioned against the local application of antiseptics of all kinds until after the diagnosis had been established. All dark field examinations are made in my department; this enables me to see every case clinically and indicate the course to be pursued in each instance. Two negative dark field examinations are required before any venereal sore is released for treatment as nonsyphilitic. A record is kept of all dark field examinations with notation of the time for the patient to return for additional examination. The patient is instructed to use constant dressings of physiologic sodium chlorid solution locally until released for treatment. Regimental surgeons are asked to watch for the development of induration in lesions under treatment, and when seen to again refer the patient for examination. As many as six or eight examinations have been necessary before the spirochete was found in a few cases.

DIFFERENTIAL DIAGNOSIS

A nice question of judgment arises when repeated examinations are negative in indurated lesions. One must then rely on the history, the clinical appearance of the sore and on repeated Wassermann tests. Of cases in the new draft, several primary lesions were found, but the greater proportion had active secondary manifestations, so that but little trouble in diagnosis was experienced. But few tertiary or congenital cases have been seen.

LABORATORY DIAGNOSIS

A Wassermann test is made on each patient before any treatment is given, and is repeated before each course of treatment. Our laboratory uses the antisheep system, the antigen being a cholesterinized beef heart extract. Blood is withdrawn Mondays and Thursdays, the test proper being done Tuesdays and Fridays. To date about 1,500 reactions have been made, with positive results in about 20 per cent. of cases. The large proportion of negative results may be accounted for by the fact that a routine Wassermann test was required on certain groups of men. To my knowledge there have been no false positives. The test as performed has proved very delicate and thus an invaluable aid not only in diagnosis, but as a check on treatment as well.

RECORDS OF CASES

A syphilitic register is made out for each patient. This is a folder with space for name, rank, organization, date of birth and of enlistment, race, history, dark field and serologic results, treatment and notes on the progress of the case. If a soldier is transferred, his register goes with him, so that treatment may be followed until a cure is accomplished. Every patient is referred to the dentist before treatment is started. A thorough physical examination is made in each case before treatment is instituted, particular attention being paid the cardiovascular system and kidneys.

TREATMENT

Routine treatment comprises comparatively intensive courses of arsphenamin (salvarsan) or its equivalent with mercury, the two drugs being used in conjunction. An arsphenamin (salvarsan) injection and mercurial treatment are given each week for ten weeks, after which the patient is given a complete therapeutic rest for five weeks. Then his physical examination and the Wassermann test are repeated; another course of treatment is then started, and so on until the Wassermann reaction becomes and stays negative. We do not feel that any of our established secondary cases are cured as yet—sufficient time has

not elapsed—but I do feel that most of the primary types of the disease have been cured. The arsenobenzol brand of arsphenamin has been the arsenical preparation most used. The gravity method of administration is used, dosage being determined at the rate of 0.1 gm. for each 30 pounds of body weight. The usual preparation is ordered the night before, and in the case of ambulatory patients, light duty is advised for the afternoon following treatment. Patients with infectious lesions are treated in the hospital. The use of tobacco is forbidden. A mouth wash of potassium chlorate and phenol is used daily. Regular use of a tooth brush is insisted on. Silver nitrate is applied locally every other day to mouth lesions. Calomel ointment is applied with massage to chancres once daily, after which powdered calomel is dusted over the sore. In mixed infections local treatment is the same as that of the chancroid once the diagnosis of syphilis is made and systematic antisyphilitic treatment begun. When patients become non-infectious, they are returned to duty, the syphilitic register being forwarded by motorcycle messenger, who takes a receipt for it from the regimental surgeon. These receipts are kept on file, so that we may be able to trace lost registers. When on duty treatment is continued, mercury being given at the regimental infirmary, and the arsenobenzol brand of arsphenamin weekly at the base hospital. A cross index of all cases under treatment is kept for reference and as a check on the time patients are to return. The various organizations send their patients to the hospital at 9 a. m. on certain fixed days weekly for the arsenobenzol treatment. In this way we are better able to handle the large number of cases. Following injection, the men wait at least one-half hour, after which they are returned to their commands. The salicylate of mercury is given intramuscularly as a part of the routine treatment while in the hospital and after being returned to duty.

TECHNIC

A standard technic has been adopted and is used by all regimental surgeons, injections being given in the evenings so that the men do not lose any time. We begin with one-half to three-quarters grain and increase at the rate of one-quarter grain weekly if well tolerated until 2 or 2½ grains are given at each dose. As has been noted by others, we find that the amount of mercury which a patient will tolerate bears no relation to his body weight. In cases in which the diagnosis is made by the dark field method, treatment is more intensive than in the later stages of the disease, because we may then reasonably expect a prompt cure, provided the individual is physically able to stand intensive treatment. It is by no means a settled question as to how intensive this treatment should be, but every one agrees that it should be as intensive as possible with safety. There are those of us who believe with

Major Pollitzer that every syphilitic should receive an arsphenamin (salvarsan) injection on each of three or four successive days, followed by a course of mercury to toleration as routine treatment in patients physically fit. A few selected cases with primary lesions have been treated in this manner at Camp Travis with good results.

RESULTS

Though too early to draw conclusions, a positive Wassermann reaction has never been obtained in any of these cases. Our routine treatment in primary cases comprises 0.1 gm. of arsphenamin (salvarsan) for each 30 pounds of body weight, repeated twice the first week, followed by the usual weekly arsphenamin (salvarsan) and mercury for ten weeks; then the therapeutic rest for five weeks, after which a Wassermann test is made and the course repeated; then the case is kept under observation, Wassermann tests being made at intervals. In tertiary and certain late secondary cases routine courses are given plus the iodid of potassium to saturation.

To date about 400 cases of syphilis have been handled, some of them only for a short time because of transfer from place to place, others having just recently come under observation, and the number of cases under treatment is of course increasing. At present about 350 injections of the arsenobenzol brand of arsphenamin and the same number of treatments with mercury are given weekly.

CASTOR OIL

DOUGLASS W. MONTGOMERY, M.D.

SAN FRANCISCO

Castor oil is obtained from a beautiful plant with large palmate leaves, often called palma Christi, the palm of Christ. If, as a child, I had known this sonorous name it might have mitigated the misery I often suffered in having to take the oil. A very determined and energetic Scotch auntie regarded "a crumb o' oil," as she used to call it, as a universal remedy of exceeding potency in both moral and physical contingencies; and indeed, there is no doubt of its efficiency as a cleanser. Why it should be so cleansing to the bowels will be referred to later. Also, that chronic dyspeptic and ill natured critic, Thomas Carlyle, used to call castor oil "that oil of sorrow," and certainly it is a cause of double grief, both in the taking and in the administration, for there is no more painful experience either for the conscientious physician or the well meaning lay person, intent on giving a beneficent drug, than to have the patient obstinately refuse the succor extended. The irritating effect of this recalcitrancy is heightened when the patient is a constipated boy with a catarrhal and blubbing nose.

ITS VALUE IN DERMATOLOGY

In diseases of the skin the administration of castor oil is of importance inasmuch as a clean alimentary canal conduces to a clean cutaneous surface. It would appear that the medicine acts particularly on the ascending colon, and this is interesting as it is undoubtedly a fact that many of the more active skin reactions are caused by poisons generated in the caput coli, a favorite location for the anaerobic proteolytic bacteria.

W. B. Cannon noticed a serial sectioning of the contents of the ascending colon in an animal given castor oil with its food. This sectioning was done in such a manner as to resemble the sectioning of the contents of the small intestine. Each time the food was sectioned, however, it was swept back by antiperistalsis.¹ Such an action would be particularly well fitted to clear out the haustra of the colon, those pockets which in colonic sluggishness must tend to become especially dirty.

1. Cannon, W. B.: The Mechanical Factors of Digestion, Longmans, Greene & Co., 1911, p. 151.

PHYSICAL CHARACTERISTICS

Castor oil is very heavy. All oils and fats are lighter than water, but castor oil and cocoa butter have the highest specific gravity, that is, 0.970,² therefore nearly approaching the weight of water.

Because of its high specific gravity, its high viscosity, and its resistance to changes of temperature, it is used as a lubricant on heavy, quick running bearings. It resists heating better than most oils, and under the influence of cold does not solidify until a temperature of from 1 to 3 F. is reached, which makes it particularly desirable for aeroplanes. There is one mechanical application of this oil which is interesting to physicians. A small bottleful of castor oil poured between the drum and the break in an automobile, under the influence of the heat, will make the break grip more firmly. I learned this point from one of my chauffeurs, while mountain touring.

SOLUBILITY

There are qualities, however, other than its density and its action as a purgative, that make castor oil particularly interesting to dermatologists. For instance, it is peculiar in being soluble in alcohol, and it is because of this action that all the brillantines are concentrated solutions of castor oil in alcohol, perfumed in various ways.

In the practice of dermatology this solubility is important as it is frequently well to add castor oil to alcoholic lotions for the hair to prevent them abstracting too much oil, and thus unduly drying the hair. A very little, one-half dram or a dram to 4 ounces (2-4 gm. to 120 c.c.) is frequently enough. In patients in whom the hair is already too oily this addition is neither necessary nor desirable.

Castor oil also facilitates the solution of salicylic acid in oils and ointments and therefore renders it less irritating to the skin. In view of the great importance of salicylic acid in cutaneous therapeutics this pharmaceutical hint is correspondingly important. The salicylic acid should first be mixed with a little hot castor oil and then added to the other ingredients.

INCOMPATIBILITIES

There is an interesting pharmaceutical incompatibility in a lotion containing sulphur, castor oil and spirits of camphor, written according to the following formula:

		gm. or c.c.
R	Sulphuris precipitatae .....	|
	Olei ricini.....āā	4|3 j
	Spiriti camphorae.....	16|3 ss
	Aquae	ad 120|3 iv

2. Mathews, A. P.: Physiological Chemistry, William Wood & Co, 1916, p. 66.

This formula might readily be written, offhand, as a lotion for the scalp. It will form a spongy, light mass which quickly distributes itself when shaken, and as quickly again collects as a spongy mass, which is absolutely useless as a lotion. The oil and the spirits of camphor do not do this; neither does the sulphur and the oil, nor the sulphur and the camphor. Neither does the spongy mass form, if enough alcohol is added to take up all the oil.

Many physicians regard these pharmaceutic details as wholly appertaining to the profession of the druggist. This possibly would be a correct attitude if druggists were especially trained to attend to a dermatologist's work. This, however, is impossible, and furthermore, such liberty of changing the written prescription as this would entail would not be indulged in by the well-trained pharmacist, nor would it be tolerated by the physician.

SUMMARY

The main facts for a dermatologist to remember about castor oil are (1) its solubility in alcohol, and (2) the use of hot castor oil as a solvent for salicylic acid.

Society Transactions

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, Jan. 23, 1918

CHARLES M. WILLIAMS, M.D., *President*

CASE FOR DIAGNOSIS, SHOWN AT PREVIOUS MEETING. Presented by DR. G. H. FOX.

This was the case of a gentleman from Havana, whose affection had been diagnosed as lepra. The patient had worried over this a great deal and lost 20 or 30 pounds in weight. When first seen there was a general papular eruption over the body with large infiltrated patches on the trunk and extremities in which were a few discoid depressions of lighter hue. A brief examination showed that it was not lepra. At first glance the condition presented the appearance of a papular syphilid, but the eruption was not at all characteristic of this disease. It had persisted about three years without any particular change. The peculiar purplish hue of the eruption, its characteristic configuration on the forearms, and the depressions or "craters" in the thickened patches was strongly suggestive of lichen planus, but there were no well marked lichen planus papules. Dr. Heimann had made a biopsy and a diagnosis of sarcoid of Boeck. Thinking that mercury and iodid of potassium might be beneficial, even without a diagnosis of syphilis, the speaker gave the patient a course of "mixed treatment." As a result the notably thickened patches had flattened completely and the eruption was gradually fading. It was presented last month as a case for diagnosis, and to those who lacked implicit faith in the microscopic diagnosis it might still be so presented. The circular depressions on the thickened patches were still seen, but presented far less contrast. Examination of the blood showed nothing abnormal except a positive Wassermann reaction. The man's general condition was improved.

DISCUSSION

DR. FORDYCE said he had not seen the patient before, but that the condition suggested to him lichen planus, chiefly because of the distribution of the lesions and the pigmentation left behind. Nine years ago he had presented before the Society a case of extensive lichen planus which left behind an intense pigmentation. The patient was in his service at the City Hospital and later died. At necropsy it was found that marked changes had occurred in the suprarenal bodies, and he then thought that the pigmentation might have been due to the condition of the suprarenals.

DR. FOX thought it strange that some cases of lichen planus left pigmentation, while in others the lesions disappeared without any trace being left.

DR. WHITEHOUSE thought it was a case of lichen planus. The lesions were fairly typical. The fact that the condition had improved under mixed treatment rather confirmed that diagnosis than otherwise, in his opinion. In his experience mercury did have a favorable effect on lichen planus. The pigmentation on the wrist and the moderate itching would not militate against that diagnosis, for the pigmentation of the lesions around the wrist and over the body were fairly typical of lichen planus. The case bore a resemblance to one now in his service at the hospital, although the latter had not the large diffuse areas that this man had, but plaques, from $\frac{1}{2}$ to $\frac{3}{4}$ inch wide, some

elliptical in shape and some linear, and leaving pigmentation resembling that exhibited by this man, on the front of the body.

DR. WISE said that the histologic picture was characteristic and could be interpreted only as that of the sarcoid of Boeck. The fact that the patient had received salvarsan was interesting from the point of view of the improvement of the skin, for Boeck emphasized the value of arsenic in the treatment of this type of sarcoid.

DR. FOX said that the improvement began before the single dose of salvarsan, which produced no evident result, and that the continued improvement was apparently the result of the mixed treatment.

DR. MACKEE said that when the patient was presented the previous month, the question of lichen planus was not seriously considered by the members present. The consensus of opinion was that, clinically, the affection belonged to the sarcoma group. The lesions were nodular and tumors ranging in size from a split pea to an adult palm, considerably elevated, and in some instances there was an annular or crateriform configuration. The surface of the lesions was smooth, whereas in hypertrophic lichen planus the surface was usually verrucous. The patient had never had any itching, which spoke against both lichen planus and mycosis fungoides.

The pigmentation was not typical of any particular entity but was similar to that seen in some cases of sarcoid and mycosis fungoides. In addition to the pigmentation there was a suggestion of a purplish or violaceous color as seen both in the Kaposi type of sarcoma and in lichen planus.

The speaker was astonished to see the improvement that had occurred. The lesions had disappeared completely, leaving the very marked pigmentation. Viewing the case for the first time one would think of the possibility of lichen planus on account of the widespread and pronounced pigmentation. While sarcoid tumors were likely to persist for many months, the speaker had seen them disappear in a month or two apparently under the influence of arsenic and even spontaneously. In fact, sarcoid was likely to act, in this respect, very much like Bazin's disease. In Dr. Fox's patient the rapid improvement was due apparently to either iodid or mercury or both, and the improvement might have been aided by the salvarsan which was given at a later period.

Clinically, there was nothing to rule out sarcoid excepting the wide distribution and the size and the number of the lesions and, perhaps, the fact that there was no remaining atrophy. Sarcoid produced both the nodular and plaque type of lesion, and at times they showed annular configuration. The speaker had studied the histologic material and could definitely rule out lichen planus. The lesion was a granuloma and resembled the tuberculosis group. The infiltration was broken up into small nodules in which there were changes in the collagen and an occasional giant cell. The slides were certainly not suggestive of leprosy. While the histology favored sarcoid it was impossible to rule out syphilis, and in view of the fact that the lesions disappeared so promptly under antisyphilitic treatment would also suggest this diagnosis in spite of the clinical picture and the long duration.

The speaker was inclined to look on the case as a very unusual and interesting example of sarcoid.

DR. FOX said that when he first showed the patient last month he had stated that a dermatologist in whom he had great confidence had made the diagnosis of sarcomatosis; but the purplish color, so characteristic of lichen planus and of no other disease, the configuration of the eruption on the forearm, and the fact that one or two lesions looked like obscure lichen planus papules, all pointed, in his opinion, to the diagnosis of chronic lichen planus. He had seen cases of this disease which, instead of running the usual acute course, had lasted for twenty years. The infiltration of the skin in the large patches might occur from the confluence of lesions, although he had never seen before

such marked thickening in lichen planus patches. Although the patient gave a positive Wassermann reaction, and in spite of the improvement under the mixed treatment, there was no feature of the eruption which could be positively called syphilitic. As for sarcoid, in the few cases which he had seen the lesions had been more or less of a subcutaneous nodular character, and the skin had been but slightly, if at all, reddened over the surface. He had never seen so extensive a case of sarcoid of Boeck as this and presenting this peculiar appearance. Sarcoid had been very persistent in every case that he had seen. In this case there had been no tendency after three years to show any evidence of disappearance, but improvement began immediately after the administration of the mercury and iodid of potash. Since years ago he gave up the study of microscopy for photography, he has been hesitant in speaking about microscopic examinations. He regretted that Dr. Heimann, who made the biopsy, was not present, but was still inclined to consider the case one of chronic lichen planus.

DR. FORDYCE said that in his opinion the possibility of syphilis may be considered, especially as it was reported that a positive Wassermann was present. If the histologic picture showed giant cells and vascular changes together with a positive Wassermann, and had furthermore improved under mixed treatment, there was certainly a possibility of syphilis being present. Tuberculosis of the skin was usually made worse by the iodid.

DR. FOX said that a man might have syphilis and yet have lichen planus or some other nonsyphilitic eruption. As for the fact that it disappeared under the treatment, all knew that many conditions that were not syphilitic will often disappear under iodid of potash—psoriasis, for instance. In this case there seemed to be none of the ordinary characteristics of syphilis in the appearance of the eruption. He would try to have another biopsy made, taking one of the papular lesions instead of a section from the edge of a patch, and see whether that looked like lichen planus.

DR. MACKEE said he recalled very clearly the specimen to which Dr. Fordyce referred, and histologically it had to be either tuberculosis or syphilis. The appearance was all in favor of tuberculosis.

DR. FOX, replying to Dr. MacKee's statement that the histologic examination indicated that it was either tuberculous or syphilitic, said that in that case he would be inclined to agree with Dr. Fordyce that it was syphilis.

NAIL AFFECTION, FOR DIAGNOSIS. Presented by DR. MACKEE.

This patient had been presented some months before when a complete history was given. As a child, the patient had some pustular affection of the bed of the nails, one after another being affected, each ending in the complete loss of the nail. The condition always had to be curetted and a minor operation performed. A period of relief followed, lasting for a number of years, and then the same affection occurred on the little finger of the left hand, and in spite of every effort to prevent it the nail was lost (antiseptics, permanganate of potash, salvarsan, roentgen ray, all failing). Two or three Wassermann tests were made and all were negative. Autogenous vaccines had also been made. The case was presented for diagnosis.

DISCUSSION

DR. KINGSBURY said that the treatment administered in the past had apparently been successful, and that this nail should be removed as the others had been. It was rather unusual to see fingers that have had nails removed appear so well as in this case. Often when an attempt was made to remove the nail some portion of it was left behind.

BAZIN'S DISEASE. Presented by DR. WISE for DR. FORDYCE.

The patient, E. McG., was a woman, aged 25, born in the United States, from Dr. Fordyce's clinic. She had suffered from hip trouble since she was 13 years of age. There was no tuberculosis in the family. She had suffered from Bazin's disease for a year and a half, the right leg only having been affected. The lesions, consisting of several large ulcers, strongly resembled gummas. The interesting question was whether there was any relation between the tuberculous hip and the Bazin's disease, both affecting the same extremity.

DERMATITIS PYOGENICA. Presented by DR. WISE for DR. FORDYCE.

The patient, E. H., was a married woman, aged 29. She had had three children and no miscarriages. She presented lesions of three weeks' duration, situated on the buttocks, chiefly at the intergluteal cleft and at the base of the spine. These lesions consisted of pea-sized papules with necrotic centers, and several ulcers with sharply defined, punched-out edges and necrotic bases, resembling gummas. The history with regard to syphilis was negative, as was also the Wassermann test.

DISCUSSION

DR. LANE thought it was a case of pyodermia. The lesions on the buttocks were fairly typical of it. The rather unusual appearance of the lesions in the intergluteal fold was probably to be accounted for by the moisture of the location and the rubbing together of the skin surfaces.

DR. KINGSBURY said his impression was the same as that expressed by Dr. Lane.

DR. WHITEHOUSE said that the lesions impressed him as being a broken down gummatous syphilid, although the duration of the condition was much too short for that. He was rather inclined to consider it a syphilitic condition.

DR. FORDYCE agreed with Dr. Lane and Dr. Kingsbury that the condition was a pyodermia probably due to a streptococcic infection. He suggested painting the lesions with tincture of iodine. Dr. McCormick of the English Army had recently published a very comprehensive article on cases of scabies complicated with streptococcic and staphylococcic infection. These cases were more severe than those encountered in civil life.

DR. MACKEE agreed with the diagnosis of pyodermia, probably following a pruritic eruption like scabies or pediculosis.

DR. WISE agreed with the diagnosis of pyogenic infection, and said it was rather strange that such conditions were not more often seen. He believed the dermatosis to be a type of echthyma.

MYCOSIS FUNGOIDES (?). Presented by DR. WISE for DR. FORDYCE.

The patient was a Russian, male, aged 42, and married. The duration of his dermatosis was about one year. He presented an eruption situated mainly on the trunk, arms, and thighs, consisting of many yellowish, reddish, and fawn-colored nummular macules, some of them slightly scaly, level with the skin, smooth and noninfiltrated. In isolated areas on the arms and thighs there were also several slightly raised and somewhat infiltrated papules, some of them arranged in a crescentic form. Itching was said to be intense, although scratch marks were not evident. At first glance, the diagnosis of parapsoriasis in patches was considered, and on further observation the possibility of mycosis fungoides was thought of. A biopsy failed to reveal any changes characteristic of either malady. The fact that the lesions rapidly faded under the roentgen-ray treatment, however, pointed strongly in favor of the diagnosis of mycosis fungoides, in the profungoid stage.

DISCUSSION

DR. FORDYCE said that Dr. Wise's argument that the condition had improved under roentgen-ray treatment rather strengthened the diagnosis of mycosis fungoides.

DR. MACKEE said that two biopsies had been made. The first showed only a slight inflammation. The second showed a beginning granuloma with a coat-sleeve infiltration around the vessels as seen in syphilis. Histologically it was impossible to make a diagnosis of mycosis fungoides.

Clinically the speaker thought that the disease was mycosis fungoides—premycotic stage—because there was considerable itching, the lesions were polymorphous in character, they were not permanent (they were constantly changing in configuration), and some were infiltrated.

DERMATITIS HERPETIFORMIS, SHOWING RESULT OF TREATMENT. Presented by DR. FORDYCE for DR. SHERWELL.

The patient had been shown at a previous meeting of the Society under a diagnosis of dermatitis herpetiformis, and was presented now to show the result of alternative antirheumatic treatment combined with pituitrin. He was entirely well.

NEURO-FIBROMA. Presented by DR. WISE.

The young man was a private patient, showing the early stages of multiple neuro-fibromatosis. There were only a few nodules on various parts of the body, and they seemed to be connected with the nerve trunks underneath. The patient was seeking to secure exemption from the draft, stating that when he walked fast and struck these nodules, intense pain was elicited. There were several nodules on the chest, back, and thighs, and considerable pain could be elicited by striking them suddenly and firmly. There were no "café au lait" spots. The history was negative. There was no similar condition in any other member of the family. Some of the tumors had been removed, simply to get rid of them, and no microscopic examination had been made. The man had not so far secured exemption.

DISCUSSION

DR. FORDYCE stated that the term "neuro-fibromatosis," which was generally used in referring to these conditions, was not correct in his opinion, for the majority of the tumors were not connected with the nerve sheaths though some of them might be. In some cases they started in the connective tissue about the skin follicles.

DR. FOX asked if the pain of which the man complained would not show some connection with the nerves.

DR. FORDYCE replied that the great majority of patients with von Recklinghausen's disease did not complain of pain.

DR. FOX said he thought it was a case of neuro-fibromas in connection with the nerves. Most of the cases that he had seen followed the course of the nerves, and all were intensely painful.

DR. FORDYCE said he had seen many cases of multiple fibromas without pain. There are all sorts of transitional cases between the two.

DR. FOX said he would call this a neuroma, although the term neuro-fibroma had been applied to them. The cases without pain he would call von Recklinghausen's disease. Von Recklinghausen's disease he would consider as the ordinary case of multiple fibroma associated with pigmentation of the skin and mental deficiency.

DR. WISE stated that the patient's affection was evidently a neuroma or neuro-fibroma. He had no visible cutaneous disease. Therefore this malady

must be distinguished from the cutaneous disease known as neuro-fibromatosis cutis, which was associated with the name of von Recklinghausen and which presented true cutaneous lesions with numerous "café au lait" macules.

ACRODERMATITIS CHRONICA ATROPHICANS. Presented by DR. WISE for DR. FORDYCE.

E. McC., aged 66, born in Ireland, came to Dr. Fordyce's clinic three weeks previously. A year ago his hands began to swell when he got up in the morning, and later became red. When presented there was marked edema, redness, and swelling of the dorsum of one hand, with a certain amount of smooth, velvety atrophy of the skin, extending up the forearms, almost to the elbows. The feet and legs were also affected, but had not the purplish appearance of the hands. The atrophy of the skin was evident on the backs of both hands and arms, but was more pronounced on the ulnar surface of the forearms than elsewhere. The Wassermann reaction was negative.

DISCUSSION

DR. WISE said he believed that the patient would ultimately present the anetoderma or cigarette paper wrinkling of the skin, as described by Pospelow and Jadassohn in this class of cases. Eventually the skin of the legs and arms would become hidebound and sclerodermatous in appearance. There was a great difference between the transparent, smooth, velvety skin of acrodermatitis atrophicans and true scleroderma, although a sclerodermatous change frequently manifested itself in cases of acrodermatitis atrophicans, especially around the ankle joints. In the patient described by Dr. Fordyce, a woman affected with this clinical type of cutaneous atrophy, there were no sclerodermatous changes, the entire process having been one of atrophy.

DR. KINGSBURY said that it was too early to reach any definite conclusion as to the diagnosis. It was a very interesting case for study.

DR. WHITEHOUSE said it would seem to be one of those cases described as acrodermatitis atrophicans, but he agreed with Dr. Kingsbury that it was too soon to make a definite diagnosis.

DR. FOX said that as he had before maintained, he considered the name an abomination. The condition was one that all had been familiar with for years—with erythematous lesions, not always on the hands and feet, next swelling of the skin, and then the hidebound condition of scleroderma, followed by atrophy. He had photographed the condition repeatedly on the thighs. This was exactly the same disease, and why it should be called by a long three-barrelled name he could not understand.

DR. FORDYCE asked if Dr. Fox would identify an atrophy of the skin with scleroderma.

DR. FOX said that atrophy often coexisted with scleroderma. The condition had a variety of names, but it was the same disease—whether it was on the hands and feet alone, or on the thighs, or body. One would not call the condition on the thigh an acrodermatitis chronica atrophicans, although the pathologic process was the same and there was the same sequence of conditions.

DR. FORDYCE said that the acrodermatitis chronica or symmetrical cutaneous atrophy was a very definite condition. It began on the fingers and sometimes involved the hands and arms, but these patients had nothing to suggest scleroderma.

DR. FOX replied that this case in his opinion was one of scleroderma, and he ventured to predict that in a short time the man would have the hidebound condition, etc.

DR. FORDYCE said he had watched a patient for years and saw first the edema, the redness, and then the atrophy.

DR. WISE said, in connection with Dr. Fox's remarks, that acrodermatitis chronica atrophicans was a clinical entity, differing in many ways from diffuse atrophy of the skin and from scleroderma. The chief differentiating points in acrodermatitis atrophicans were as follows: The disease was peculiar in that it almost invariably began on the hands and feet; the affected skin eventually became glossy, velvety, smooth and translucent like advanced senile atrophy. The veins shone through the skin. Sometimes sclerodermatous changes supervened. In true scleroderma the skin was "hidebound," dense, hard and inelastic, and could not be lifted from the subcutaneous tissues. The veins did not shimmer through the skin. In acrodermatitis chronica atrophicans, large fibrous nodules developed, late in the disease, at the knees and elbows. Such a case was ably described in the *Urologic and Cutaneous Review*, by Ketron of Baltimore. In the speaker's experience, such nodules were encountered neither in diffuse atrophy of the skin, nor in diffuse scleroderma.

DR. FOX said that on the thighs we had the same erythematous swelling at the beginning, and in a short time we had the hidebound condition of scleroderma, and it ended in the atrophic wrinklings of the skin. Sometimes the sclerodermatous stage may be absent, and you simply had the wrinkling, following the edematous condition. He stated, further, that he was willing to admit that Dr. Wise had studied the condition and read more carefully than he had done, but it seemed to him there was a tendency in modern dermatology to take a disease, as one might take psoriasis, for example, and selecting conditions on certain parts of the body, call them by different names. Yet, it would still be ordinary psoriasis.

HODGKIN'S DISEASE. Presented by DR. WISE for DR. SCHWARTZ.

The patient was a young man, single, born in Russia, and had suffered with the condition for seven months. He presented marked adenopathy of the neck, axillae and groins, together with a papular eruption of the body, most pronounced on the trunk, which showed evidences of much scratching.

DISCUSSION

DR. WHITEHOUSE said that Dr. Fordyce had brought up the matter of the eruption in this case, and he would recall to his attention a case of lymphatic leukemia which was much like this which he presented a year or two ago. The itching, the grouping, and the pigmentation were clinically those belonging to a dermatitis herpetiformis, and Dr. Fordyce in discussing that case believed as he did—that it was part of the Hodgkin's disease.

DR. FORDYCE agreed with Dr. Whitehouse that the pigmentation was part of the Hodgkin's disease. He had seen it in one other case of Hodgkin's disease, and it was described in most of the textbooks as a possible complication.

DR. LANE asked if the eruption was not more often scattered and discrete, and less diffuse than this. Was not this more the type of arsenical pigmentation?

DR. FORDYCE replied in the affirmative, but said that patients did have pigmented lesions in Hodgkin's disease.

DR. MACKEE said that he regarded the pigmentation as being due to arsenic. It was both widespread and mottled. The speaker thought that arsenic was carelessly employed by dermatologists. It was a valuable remedy, but could only accomplish a certain amount of good. On account of the possibility of serious sequelae, arsenic should not be employed too steadily over long periods. The main trouble seemed to be in letting the patient know that arsenic was being administered. If the disease were one like dermatitis herpetiformis, the patient might take arsenic at intervals for years without the permission of the dermatologist. The speaker employed arsenic very cautiously and never allowed the patient to know of its administration, or, if he did know, he was cautioned against taking it without permission and only in the doses prescribed.

In Hodgkin's disease the results following roentgen-ray treatment were very good. The deep technic should be employed and great care taken not to injure the skin.

DR. FOX said he was gratified to hear Dr. MacKee's remarks about arsenic, and that he had sometimes wished that a law should be passed preventing physicians from using this drug. He had always claimed that it was one of the most powerful drugs we had, but that it very frequently did more harm than good, and that it should not be prescribed for skin diseases except when needed as a nerve tonic. The common habit of many physicians of prescribing it for all dermatoses, just as quinin was prescribed for chills and fever, had done much harm.

DR. FORDYCE said that he had noted the occurrence of keratosis on the palms and soles after the administration of salvarsan. It sometimes occurred independently of a generalized exfoliative dermatitis; at other times, it persisted after the disappearance of the generalized dermatitis.

DR. FOX said that in these cases of Hodgkin's disease arsenic was generally given in such large doses that it was difficult to say whether the pigmentation was due to the disease or to the arsenic.

Regular Meeting, Feb. 27, 1918

JAS. C. JOHNSTON, M.D., *President*

MILIARY PAPULAR SYPHILID. Presented by DR. WISE for DR. FORDYCE.

The patient was a woman, aged 25, single, who for three weeks had had an eruption on the face and upper part of the trunk. The facial eruption consisted of closely set pinhead to barleycorn-sized nodules, many of which coalesced to form solid plaques which implicated the skin of the nose, chin and cheeks. On the upper part of the trunk and extremities the skin exhibited numerous lichenlike milium papules, occurring as scattered lesions and in groups. Here and there several lenticular nodules were surrounded by smaller milium papules, forming a corymbiform eruption. The patient denied sexual relations, and to all appearances had acquired the infection innocently. Her family physician had diagnosed the condition as one of erysipelas, and had treated her for that disease for a week prior to her admission to the clinic.

LEPRA. PRESENTED BY DR. WISE.

This was a private patient, a woman, aged 58, born in Bavaria, but who had been living in New York for thirty years with the exception of four months which she had recently spent in Los Angeles, Calif. It was not ascertained how or where she acquired the disease. The lesions had been present for about six years, but the condition was not recognized until recently. The lesions were chiefly of the nodular type on the face; there were some annular lesions on the legs. The patient also had anesthesia, and beginning atrophy of one hand. When picking up things she frequently dropped them unconsciously. A biopsy was made in Los Angeles, and lepra bacilli were found.

CASE FOR DIAGNOSIS (SARCOID?). Presented by DR. G. H. FOX.

The patient was a Cuban, and the possibilities of lepra, syphilis, mycosis fungoides, sarcoid and lichen planus had been discussed. Under mercury and iodid of potassium the large thickened masses had disappeared entirely and the eruption had flattened, leaving considerable pigmentation. The patient was presented on two previous occasions.

DISCUSSION

DR. FOX said that he was still inclined to the diagnosis of lichen planus, although Dr. Heimann had made a second biopsy, this time taking a small lesion instead of a section from a large thickened mass, but had found no evidence of lichen planus.

The speaker said he hated to doubt what was found by microscopic examination, but all knew that pathologists sometimes differed in their findings and at times we were obliged to fall back on the clinical diagnosis. In this case there were several points essentially characteristic of lichen planus, namely, the purplish hue of the eruption which he had never seen in any other skin disease, the configuration of the lesions on the forearms which all admitted was typical of lichen planus, and the presence still of flattened, umbilicated lesions which, if not typical, were very suggestive of lichen planus papules. The "craters," or circular depressions of lighter color than the surrounding skin which were seen in a few of the thickened patches, he had never observed except in two diseases—leprosy and lichen planus. These had almost disappeared. The marked thickening of the skin in patches as large as the palm he had never seen before in lichen planus. The resulting pigmentation might indicate syphilis as well as lichen planus, and the rapid disappearance of the eruption under mercury would naturally suggest this diagnosis; but the condition had persisted with little or no change for three years and there were no characteristic syphilitic lesions. Mercury might also cure a sarcoid, it is claimed, but the few cases he had seen had not yielded to such treatment. It could hardly be a case of tuberculosis, as that would not yield so rapidly to "mixed treatment." The only way the diagnosis could be settled, in his opinion, was to await developments and see whether or not the patient has a relapse of typical lichen planus during the next year or so.

DR. WISE said that he based his diagnosis of Boeck's sarcoid chiefly on the histological structure of a specimen derived from one of the lesions. Further, he said that the first case which Boeck described and illustrated in *THE JOURNAL* somewhat resembled this case, from the clinical standpoint.

DR. HEIMANN said that the first specimen which Dr. Fox sent to the laboratory showed the histologic structure of sarcoid. In studying the literature he found that Hallopeau and Boeck had each described similar cases characterized by large plaque-shaped lesions on the back. Microscopically the lesions suggested only sarcoid and had none of the characteristic features of lichen planus. The second biopsy showed less of the infiltration but a large increase in the vascular structures, and a slight perivascular infiltration of the same type found in the first biopsy. Clinically he did not think the remaining pigmentation was so much due to the deposition of melanin as to a dilatation of the vessels. The skin over all the lesions could be blanched on pressure, which would not be the case in lichen planus. Sarcoid sometimes disappeared spontaneously. He understood that arsenic, roentgen ray, mixed treatment, etc., had been employed.

LICHEN PLANUS. Presented by DR. HEIMANN.

The patient presented lichen planus lesions on the hands. For twenty years, more or less, he had had psoriasis, of which he presented typical lesions on his thigh. Two months ago the lesions on the palms appeared and subsequently a few lesions on the wrists. The lesions on the palms had characteristics suggesting lichen planus, but these were more marked on the wrists. The buccal mucous membrane was free of lesions, but examination of the prepuce showed lichen papules, of which the man was not aware. A biopsy had been made and revealed typical lichen planus.

HYPERTROPHIC LICHEN PLANUS. Presented by DR. WISE for DR. FORDYCE.

The patient was an Austrian, aged 48, with a negative personal history. He presented numerous deeply pigmented, isolated and confluent papular lesions, located chiefly on the lower part of the back and the backs of the thighs. The lesions were dark brown in color, shiny, irregular in outline, and topped with striated scales, giving the affected skin a roughened appearance. Many of the lesions were circinate in outline, the circles consisting of closely set papular elements. The interior of some of the circinate lesions presented evidences of atrophy, with brownish pigmentation. The mucosae were unaffected. The duration of the eruption was six months.

SARCOID. Presented by DR. KINGSBURY.

The patient was a young woman, aged 18, with lesions on the right cheek of five months' duration. These consisted of several dark red, slightly raised, sharply outlined, smooth, somewhat edematous and indurated plaques, resembling nodular lupus erythematosus.

DISCUSSION

DR. FOX said that in the cases of sarcoid he had seen the disease had more the character of a subcutaneous tumor with a comparatively smooth skin over it. Although in this case there was a decided thickening of the skin, it seemed to be too superficial a condition to be termed sarcoid. He was inclined to consider the condition to be lupus erythematosus.

DR. WHITEHOUSE said that he considered the diagnosis lay between sarcoid and lupus erythematosus. He had always observed, as Dr. Fox had said, that sarcoid lesions were rarely of this superficial discoid type, neither had sarcoid the pitting and the slight atrophy seen in this instance. There was also an adherent scale in one part which if detached might present the characteristic prolongations into follicles. In his opinion the clinical features were more in favor of lupus erythematosus than sarcoid.

DR. HEIMANN said that it was often difficult to differentiate clinically between the two conditions. In some points the case resembled sarcoid more than lupus, but, as Dr. Fox had said, it seemed too superficial for sarcoid, and, as Dr. Whitehouse stated, too deep for lupus erythematosus. There were two types of sarcoid, that of Boeck which was dermal and a hypodermal type or deep form. The latter conformed to the description given by Dr. Fox—the skin stretched and elevated over a deep infiltration. The speaker inclined, however, to the diagnosis of sarcoid of the superficial variety rather than to lupus erythematosus, though the two conditions were very closely related.

DR. SHERWELL said that at first he thought it was lupus erythematosus, but afterward recalled the case of a Scandinavian whom he had presented before the Society, and whom Dr. Clark had treated with the roentgen ray without results, save destructive. The man was 40 years of age and had the same kind of lesions but more pronounced, and in the same situation—both cheeks over the malar prominences. He disappeared for awhile, but the speaker had heard from him recently and he was rather worse; the roentgen ray did not prove beneficial and ulcerations had developed where the roentgen ray was applied. The general consensus on that case, when shown two or three times at Society meetings, was sarcoid; from the apparent analogy he should be inclined to the same diagnosis in the present case.

DR. WISE agreed with the diagnosis as presented, and with the remarks made by Dr. Heimann. It had been his experience that in those cases in which the diagnosis of lupus erythematosus could not be made outright and without hesitation, a biopsy would almost constantly reveal the lesion in question to be one of Boeck's sarcoid.

DR. MACKEE agreed that it was often difficult and at times impossible to differentiate clinically between lupus erythematosus and sarcoid of the superficial type. The speaker had seen patients who exhibited lesions of both diseases. A short time previously there was a patient at Dr. Fordyce's clinic with a typical butterfly lupus erythematosus of the nose and cheeks, and lesions of sarcoid on the chest and arms. In the case under discussion the speaker was in doubt about the diagnosis. The adherent, thickened, horny layer suggested lupus erythematosus. On the other hand, the patch was composed of three small lesions which were grouped in a circinate manner. This was suggestive of sarcoid.

DR. KINGSBURY said it was clearly a borderline case, and should be kept under observation before making a positive diagnosis. He concurred with the remarks made by Dr. Whitehouse and Dr. Fox, and also the point made by Dr. MacKee of the distinct plaques tending to form a circle. He had brought the case up for consideration, as he had hoped also to show another case of definite sarcoid.

CASE FOR DIAGNOSIS (FOLLICULITIS OR SYCOSIS?). Presented by DR. WISE for DR. FORDYCE.

The patient was a man, aged 30, who for two years had been troubled with a follicular eruption of the beard and anterior portion of the scalp. There was no evidence of pus formation or of central necrosis, the lesions being small and dry. The case was presented on account of its resemblance, in the scalp to acne varioliformis, and in the beard to sycosis.

DISCUSSION

DR. FOX said that if the folliculitis had been confined to the cheeks no one would have thought of anything but sycosis. Sycosis of the scalp was rare, but was seen occasionally, usually in conjunction with sycosis of the face. It could hardly be acne varioliformis, as there would have been some scars by this time. If he were forced to make a diagnosis he would call it sycosis.

DR. WHITEHOUSE thought it was a case of folliculitis, probably one of the class he had spoken of more than once, which he called "pickers," where the process is kept up by continued picking at the affected region. At one time he had a case that could hardly be differentiated from sycosis. It was finally found that the patient had a notion that the hairs were turning inward and that the only thing to do was to pick them out, and he kept a pair of forceps and scissors for this purpose until he had actually dulled the scissors. When the instruments were taken away from him, the whole condition cleared up—simply by checking the irritation. The lesions in Dr. Wise's case were all picked. He did not see any evidence of acne varioliformis.

DR. SHERWELL asked if the formation of pus was not a *sine qua non* in sycosis. There was no evidence of that in this case. It seemed to him to be a destructive folliculitis of some kind. He had never seen a case of sycosis in which there was not some pus—sometimes large quantities, sometimes less.

DR. MACKEE said the condition was certainly a chronic folliculitis, and the fact that there were no pustules would not necessarily negative the diagnosis of sycosis vulgaris.

DR. FOX, referring to Dr. Sherwell's inquiry about suppuration in sycosis, said that years ago when he was studying sycosis and trying to find a case with hairs penetrating the pustules for a typical photograph, he had examined scores of cases, many of which showed no pustules at all, and was then impressed with the fact that there was often a persistent folliculitis without the formation of pustules.

DR. WINFIELD agreed with what Dr. Fox had said. He had often watched cases of sycosis and found no pus at any time.

CHICAGO DERMATOLOGICAL SOCIETY

*Regular Meeting, Dec. 18, 1917*WILLIAM ALLEN PUSEY, M.D., *President*

CASE FOR DIAGNOSIS. Presented by DR. SENEAR for DR. PUSEY.

The patient was a man, aged 32, who was presented because of a persistent eruption which had not responded to treatment. The disorder was of one and one-half years' duration. When first seen many of the lesions were urticarial in type, but in the present attack all the lesions were flat and erythematous. Likewise, when first seen the patient had a few scattered vesicular lesions on the face, but these cleared up under autoserum therapy and had not since recurred. Ordinary methods of treatment were unavailing but the disorder practically disappeared under five injections of autoserum treatment, and did not recur for five months. The eruption apparently had no relation to foods. It was formerly accompanied by severe itching which was worse at night but this was not so pronounced in the present attack. As a boy he had urticaria each summer for years.

DISCUSSION

DR. FOERSTER considered it one of the not infrequent urticarial types of dermatitis herpetiformis. The persistence of the ring type of the eruption and the duration would also speak for that diagnosis.

DR. ZEISLER said that at first glance he thought of pityriasis rosea but the duration of the disorder excluded that diagnosis. The lesions were more like the persistent type of urticaria than anything else.

DR. LIEBERTHAL had seen the case eighteen months previously and the lesions were distinctly those of urticaria, but the persistence of some of them and the occurrence of a vesicular eruption on the face from time to time made one think of dermatitis herpetiformis. He believed the further study of the case would be exceedingly interesting.

DR. SENEAR stated that the case at first was distinctly urticarial, the lesions for the most part being erythematous, but at present while the skin reacted to trauma very easily there were not many lesions of the urticarial type left. He was inclined to believe that it was a case of dermatitis herpetiformis.

LEPROA ANESTHETICA. Presented by DR. HARRIS.

The patient was a man, aged 29, a native of South America, who presented typical lesions which were of eighteen months' duration. A good deal of anesthesia to heat and pain was present. The trouble started as a small red spot on the palm, rather quickly spread to the face, then appeared on the left thigh and both lower legs, accompanied by anesthesia and pigmentation.

The patient showed the leonine facies, and areas of infiltration and pigmentation over the trunk and extremities. There were areas of anesthesia and rather marked atrophy of the interosseous muscles.

DISCUSSION

DR. BEESON considered it a very interesting case of a type which was not seen very often in our country.

DR. HARRIS thought the case interesting because the patient had been examined by five different physicians in Chicago and the diagnosis was not ascertained until made by a neurologist.

DERMATITIS EXFOLIATIVA. Presented by DR. HARRIS for DR. McEWEN.

The patient was a man, aged 52, who had been in the hospital about three months previously. The disorder had existed for two years. It started in the left groin, then appeared behind the knee, then under the arms and finally all over the body. It was accompanied by itching which was worse in the day

time and more pronounced in the summer than in the winter. At the time of presentation the patient showed a generalized dermatitis with exfoliation and generalized lymph adenopathy. The skin was of a brownish-red color.

DISCUSSION

DR. SCHAFFNER had considered the possibility of a leukemia with skin changes, or an exfoliative dermatitis of the type of pityriasis rubra—Hebra.

DR. BEESON believed that pityriasis rubra would have to be considered.

DR. HARRIS called attention to the similarity between this case and that of the Bulgarian shown at a previous meeting, who presented the same thickening of the skin. That patient had practically cleared up on a low nitrogenous diet during the last eight months. He had the same adenopathy and the lesions displayed the same tendency to weep, but he had disturbances of pigmentation also.

FAVUS. Presented by DR. STILLIANS.

The patient was the little boy who was shown at the October meeting. He was exhibited again to show the condition as it was originally. When ointment was used the trouble almost entirely disappeared. The treatment was stopped and within a few days the whole head was again coated over with crusts, matting the hair together, and favus cups had been found, though they were not found before. (Photographs and specimens were exhibited.)

DISCUSSION

DR. HARRIS asked if anybody had seen a case of favus appearing as a scaly dermatitis without any cups and no loss of hair. The hair simply got dry and was matted together.

DR. LIEBERTHAL said he had seen only a few cases of favus in Chicago, perhaps five or six, and all had occurred in American children whose people had lived in this country for generations. He had seen cases during his early days in Europe in which the hair matted together because the favus was combined with an extensive seborrhea.

DR. HARRIS said that in this case sulphur ointment would take the lesions off and then when treatment was stopped it would recur in a very few days. There were originally epithelial cells and mycelium, but no weeping and no scutulae.

DR. STILLIANS stated that the scales were not greasy but were dry and very adherent. When removed they crumbled up like soft mortar.

SCALY PATCHES OF THE SCALP. Presented by DR. HARRIS.

The patient was a woman, aged 51, with a scaly patch $2\frac{1}{2}$ inches in diameter on the posterior part of the scalp which had been present for twenty-five years. The lesion was markedly hyperkeratotic and remained in one location, gradually getting a little larger. It was covered with thick white scales which were very adherent and on removal left a bleeding area.

DISCUSSION

DR. FISCHKIN thought it appeared to be a superficial irritation of the skin. The lesions were not deep and were associated all the time with an inflammatory condition of the skin. He believed it was a persistent eczema of the scalp which had apparently never been treated. He thought that persistent treatment and proper care would probably clear it up.

DR. FOERSTER thought it was one of those peculiar, persistent, scaly, inflammatory patches on the scalp, or often just at the margin of the scalp, which were extremely resistant to treatment. He had never been able to satis-

factorily classify them; the resemblance to eczema was marked at times, but the entire lack of response to treatment was a differentiating feature. The speaker had shown a similar case in a man, but he thought in that case there was much more hyperkeratosis than in the present patient, and a great deal less infiltration and inflammation with considerable loss of hair. He believed these cases were two types of the same condition, differing only in degree.

DR. MACKEY thought the traumatic element was a large factor in the etiology of such conditions. In his observation the patients usually had a nervous habit of oftentimes unconsciously scratching, and the degree of thickening of infiltration depended on the persistency of this scratching. He was inclined to look on the affection as belonging to the neurodermatoses.

DR. SENEAR agreed with Dr. Foerster that the lesion was pruritic, because the woman said that she pulled the hairs out.

DR. ZEISLER thought it was an exaggerated case of eczema nuchae such as was often seen in women at the nape of the neck.

DR. LIEBERTHAL believed the cases should be classed as eczema. They were very resistant to treatment but were sometimes cleared up. He had applied potassium hydrate in some of the cases, had used the compound chrysarobin ointment, and applied the ultraviolet light to the patch. Considerable irritation was produced which afterward subsided. He thought intensive treatment would control these cases in most instances.

DR. HARRIS said he showed the patient because the condition was exactly parallel to that in a patient whom he presented before the American Dermatological Association three years ago. He had treated the patient for a year but did not get results and then Dr. Pusey had treated her for a year. The lesions had remained in about the same location. In the case of the man, he said he had used all sorts of treatment and in that case the scales came off easily. A mixture of 10 per cent. sulphur and 15 per cent. salicylic acid had helped but immediately on stopping treatment the whole process returned. He had also used the ultraviolet ray, even to the point of blistering the skin. The lesions improved temporarily but in a couple of months they recurred. The characteristic thing was the sharply defined patch, somewhat infiltrated, with a silver white scale which was very adherent. He did not believe it was lichen chronicus or an eczema nuchae, for these conditions disappeared very readily under the ultraviolet light or some stimulating application, but this did not. Itching was not a prominent factor in these cases while in the lichen chronica nuchae it was.

BLASTOMYCOSIS. Presented by DR. STILLIANS.

The patient was a colored man, aged 38. The lesions began on the scrotum eleven years ago and progressed upward to the middle of the abdomen and backward to the gluteal region. He had been in the hospital at one time for fourteen months, leaving three months previously with only a few small unhealed areas. At the time of presentation he showed a number of large lesions which varied in size up to several inches in diameter. The active lesions were at the borders of the area, the center occupied by a deep contractile scar. A small lesion formerly on the tip of the right thumb had not recurred.

DERMATITIS HERPETIFORMIS. Presented by DR. HARRIS.

The patient was a young colored woman with generalized dermatitis who was shown at the November meeting.

The eruption had cleared up after that meeting and then another attack had broken out which showed the erythematous urticarial lesions of the dermatitis herpetiformis.

DISCUSSION

DR. FISCHKIN thought that many cases on the borderline were hard to diagnose, but here there was itching and the lesions were grouped and it looked to him like a dermatitis herpetiformis of the bullous type.

CHICAGO DERMATOLOGICAL SOCIETY

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PRESIDENT'S ADDRESS

(Abstract)

BULLOUS AFFECTIONS OF THE SKIN WITH SPECIAL REFERENCE TO DERMATITIS HERPETIFORMIS, HERPES GESTATIONIS AND PEMPHIGUS VULGARIS

DAVID LIEBERTHAL, M.D.

After citing the histories of numerous cases of the three above-named diseases, the speaker considered diagnostic points and treatment. The most frequent type of dermatitis herpetiformis was the vesicular. The apparently angular bases of the vesicles, on which so much stress was laid, was the result of confluence of very minute round vesicles. In the bullous variety of cases there was a preponderance of vesicular lesions. Affection of the mouth in dermatitis herpetiformis occurred only after skin manifestations had preceded. Grave forms of the diseases with a fatal result were observed but rarely. In these a distinction from pemphigus vulgaris might prove quite difficult.

In herpes gestationis the purely vesicular form was the more frequently observed. Although these cases were classed under dermatitis herpetiformis, yet they formed a separate group on account of difference in their course. After termination of pregnancy the skin healed, and only with subsequent pregnancies did the cutaneous affection recur. Here was suggested a toxic item, developed during pregnancy, as being the causative agent. One of the cases cited, in a pregnant woman presenting vesicles and bullae in great number around the genitals, anterior aspect of thighs and abdomen, was dwelt on at greater length. Here were observed grayish brown vegetating masses on the bases of blebs. Some of the blebs and vesicles showed turbid contents. On account of these two items two divergent diagnoses, of pemphigus vegetans and of impetigo herpetiformis were offered. Against the first must be said that bullous lesions of various diseases might be followed by vegetations without being pemphigus vegetans. Pemphigus vegetans was accompanied by grave systemic symptoms and terminated fatally. As to impetigo herpetiformis there were present at all times groups and bands of pinhead-sized pustules (and pustules they were at the inception). These coalesced and became crusted. The process spread peripherally by the apposition of new groups of pustules of the same size. Even should it be admitted that cases with mixed lesions, vesicles, blebs and pustules occurred, yet the initial lesions of minute pustules must always be present and these in the majority. The patients with impetigo herpetiformis were prostrated, with chills and high temperature going hand in hand with the eruptions. The mouth became affected subsequently and the patient died, as a rule.

The diagnosis of pemphigus at times offered difficulties. Attention was here called again to the cases with vesicular and bullous affection of the mouth preceding by many months the appearance of lesions on the skin, especially one case of a girl of 24, who showed besides the lesions in the mouth, erythematous patches on the abdomen and thighs and on these, groups of vesicles a number of months before any bullae developed on the skin. At that stage a dermatitis herpetiformis was suggested. The speaker, at that time, declined to commit himself but intimated the possibility of a pemphigus. It was advisable to be guarded in making a diagnosis of pemphigus at the first examination, except if the case were a perfectly pronounced one. It was far

more reasonable, in even slightly doubtful cases, to defer a definite diagnosis. The speaker said that he had not been fortunate enough to see any case of benign pemphigus. In every case of decided pemphigus he had given a bad prognosis, and the further events proved this to have been correct. The most important thing to do was to make the life of these sufferers as bearable as possible. Of internal remedies none had given any satisfaction in pemphigus, even arsenic and quinin giving no results in his hands, although in dermatitis herpetiformis arsenic proved of benefit. Of local applications he found of service cooling mixtures of water, vaselin and lanolin. But the treatment of choice was the continuous bath. The speaker kept one patient with pemphigus foliaceus in perfect comfort in the bath for nine consecutive months. Unfortunately few hospitals were equipped with such apparatus which would serve also for other diseases with extensive cutaneous lesions. The speaker had no personal experience with salvarsan or serum treatment in pemphigus, although there were cases successfully treated by both on record. In dermatitis herpetiformis the serum treatment was generally accepted as beneficial. And here was opened a field for fruitful research by systematic examination of the serum before and the blood of the patients after injections, which might disclose chemical or other changes and give a scientific basis for this method.

DISCUSSION

DR. ORMSBY said the subject of vesicular and bullous dermatoses was a very large one, but Dr. Lieberthal's exhibition of the subject was very good. One or two points he thought were of particular value; the first was the question of the vegetating lesions in the patient he mentioned. They had had considerable experience in vegetating lesions occurring in dermatitis herpetiformis. He had seen the patient referred to and she had no sign of impetigo herpetiformis. He had never seen a case and thought they were very rare; Dr. Hyde had reported one case a number of years ago. He believed that the disorder was characterized by small pustules and unless they were present that diagnosis could not be made. The appearance of the mucous membranes must also be impressed on them. They had seen a number of cases at the County Hospital where the diagnosis had been made before any lesions appeared on the skin. He also believed the mucous membrane type of cases were very grave. He thought there was a group of acute cases of pemphigus, but these cases were practically infectious bullous dermatoses, one of them being the type which followed vaccination, and the other, the butcher type which followed some sort of injury. Whether these really should be classed as pemphigus was a question which was still to be decided. They were cases of bullous dermatitis in which the patient commonly succumbed.

As to the other question, the subjective symptoms; he believed that the burning sensation which occurred in dermatitis herpetiformis was not sufficiently emphasized. They itched a great deal and the burning sensation was a very pronounced feature.

They had had considerable experience with autoserum in these cases and it had been of some value. He believed arsenic was the best remedy, but in the long run keratoses appeared and became pigmented and it was questionable whether it was best to have prolonged the use of the remedy or not. He had patients now who were "fiends"—they would rather have the keratoses and pigmentation than the disease. Some of them averaged 15 drops of Fowler's solution or the liquor arsenicalis; in this way the cases could be kept entirely under control. A number of cases apparently recovered but the arsenic had to be continued and the treatment was unsatisfactory on that account although it would absolutely control the symptoms.

Their experience with arsenic in pemphigus was unsatisfactory. The patients who had been given that treatment had eventually succumbed to the disease.

As to facilities for a continuous water bath, Dr. Lieberthal had not applied to the Presbyterian Hospital. That hospital had a thearpeutic department and

for some years they had treated all their cases that needed it in that manner. The department had been established there for at least ten years. He believed that any paper of this sort which would bring out a discussion on such a group of diseases was important, and he believed with Dr. Lieberthal that in some of the cases diagnosis must be deferred for a considerable time, but after a reasonable time the diagnosis could be arrived at. The therapeutic measures were entirely inadequate to meet the situation.

DR. STOKES said that after listening to Dr. Ormsby's discussion there was not much a younger and less experienced man could add.

His interest in the dermatitis herpetiformis group of dermatoses was aroused by seeing on Dr. Wile's service an example of impetigo herpetiformis in a woman who at the time of her death had a four weeks' old child. The disease came on during pregnancy and presented the peculiar stellate flaccid pustules from the very onset of the disease. His interest had been further stimulated by the striking histopathologic resemblance between the lesion of dermatitis herpetiformis and that produced by an extrinsic toxic agent, the poison of the black fly met with in the north woods. The general below-par condition of patients with dermatitis herpetiformis had repeatedly impressed him. Although they were often spoken of as healthy there was apt to be a peculiar pallor and a pinched appearance about the face. None had ever seemed to him to be constitutionally entirely normal.

He had been impressed from the etiologic standpoint with the influence of the nervous type of makeup and of the nervous strain in the development of dermatitis herpetiformis. The nervousness was not to be confused with that due to the itching and loss of sleep in the attack itself. He had had intelligent observers say that they could bring on an attack by a prolonged mental and nervous strain. The favorable results which would frequently be brought about by inducing the patients to take up an outdoor life were rather interesting. Some indoor workers in his experience had greatly reduced the frequency of their exacerbations by taking up life on a ranch.

He had been impressed many times as had all those attending the sessions of the Society, with the relationship so often emphasized by Dr. Pusey between dermatitis herpetiformis, urticarias, and erythema multiforme quite as much as between the dermatitis herpetiformis and pemphigus.

In the one case of pemphigus vegetans which he had thus far had an opportunity of studying, he attempted to make anaerobic cultures for the bullae without result. Quinin given intravenously by the method of Lesczynski— $1\frac{1}{2}$ or even 2 gm. were without effect. Salvarsan and the administration of arsenic were equally ineffective. The continuous bath gave the young woman temporary relief.

He was interested in hearing Dr. Ormsby mention arsenic "fiends." He thought that such a mental state sometimes developed among psoriatics as well as among patients with dermatitis herpetiformis. They got to the point at which they preferred the ill effects of arsenic to the conditions it managed.

DR. FOERSTER said that Dr. Stokes had suggested a point which had always been of great interest to him, the diagnosis of these bullous lesions of the skin from the bullous type of erythema multiforme. He had recently had an opportunity to investigate several of these cases with the view of determining the possible presence of an acidosis. A typical case of recurrent erythema iris involving the hands and forearms, with isolated lesions on the other extremities and occasionally on the mucous surface of the lips, a condition existing for a number of years, was investigated for its alkali reserve content, which was found to be very low. The patient was placed on alkalies and immediately the condition cleared completely. On cutting down the alkali the lesions promptly returned, and they reappeared and disappeared at will just as the amount of alkali was increased or withdrawn. Shortly after that he saw a case of what he regarded as an erythema bullosum toxicum, in a child about six years of age, following scarlet fever. In this instance the lesions were those which

would be regarded as typical of pemphigus. They were large groups of bullae, arising suddenly from skin which had been absolutely clear. Over night a group of hazel-nut to olive-size bullae would appear on different parts of the body. The condition persisted for seven months with numerous sharp rises of temperature. It was difficult to investigate the alkali reserve, as the child was very small, but an accurate result was finally obtained and it was found to be very low. An attempt to determine the alkali reserve by noting the response of the highly acid urine to the administration of sodium bicarbonate had been made, but it was almost impossible to get the urine alkaline. After it was determined by the Rowntree method that the carbon dioxid tension of the alveolar air was low (28-normal between 40-50) large doses of soda were given and the bullous lesions gradually grew less in number and size and then ceased altogether. When treatment was suspended for a while the lesions reappeared and on reinstating the alkali treatment they vanished again. They had now remained away for three months, during all of which time the urine had been kept in an alkaline condition.

He thought that along this line of investigation something might be found which would assist in differentiating between the members of this large group of disorders with bullous lesions.

DR. VARNEY said they were indebted to Dr. Lieberthal for presenting such a subject so ably. A dermatologist was usually called in consultation to see a bullous condition and must, often without very much time, give a definite diagnosis. He was sure every one had been mentally refreshed by Dr. Lieberthal's presentation. He did not see many of the pemphigus group, which he did not regret, but in the number he had seen the outcome had been the same as the author's. The dermatitis herpetiformis was much more common and more easily recognized. He was struck with what Dr. Stokes brought out about the neurotic type of patient who presented this condition.

As to treatment, arsenic had been the real standby, although he felt that much had been gained in therapeutics through administration of autoserum therapy. In a younger patient he found rather prompt response to treatment, but in a patient of advanced age with dermatitis herpetiformis with absolute atrophy of the nails and a condition which had persisted for a long time, the treatment had been rather unsatisfactory as the condition recurred, not always as severe as the original recurrent attacks, but more or less persistent.

Regarding the treatment of pemphigus conditions he had been somewhat in the position of Dr. Lieberthal in not having at his command a medicated bath and he had treated extensive bullous dermatoses with powdered starch, recommended by Charles J. White, and thought he had given the patient much comfort. He practically filled the bed with starch. This treatment had been rather disagreeable when carried out at home because it had been impossible to keep the starch out of the furniture.

DR. McEWEN was impressed in hearing the paper and discussion with how little was really known about the etiology of skin troubles. Very little in reality was known of the causes of dermatitis herpetiformis and pemphigus and there were many other diseases of which the same might be said, including the commoner sorts such as psoriasis and lichen planus. He thought this fact should act as an incentive to every dermatologist that he should keep up the struggle to discover causes; especially since the discovery of etiologic factors would lead to a more rational therapy. He doubted if there was any branch in medicine in which etiology was as much in the dark as in dermatology.

DR. FREEMAN asked if they had ever found any of their patients who were neurotic previous to the development of the dermatitis herpetiformis, or whether they developed that condition during the course of the disorder. His experience had been that when they had been relieved of the symptoms the neurotic condition was also relieved.

DR. STILLIANS expressed his appreciation of Dr. Lieberthal's plea for the continuous bath. They had tried for a long time to get this accommodation at the County Hospital.

He also agreed with Dr. Freeman that the patients were not so neurotic when they once obtained relief from the itching and sleepless nights. He had a patient who was apparently not at all neurotic when he was free from the distress, and nobody could be blamed for being neurotic in the midst of an attack.

DR. COLE thought the French name for dermatitis herpetiformis was very expressive: "*Dermatite polymorphe douloureuse*." There was another thing Brocq brought out and that was, that in the lumbar puncture an increased cell count would be found in the spinal fluid. This might be due to the fact that there was some inflammatory reaction of the meninges the same as in the skin. Another thing he mentioned in the etiology and to which he was sure Dr. Corlett would agree as he had had a very large experience with pemphigus foliaceus, some thirteen cases, and that was that his cases had all occurred in Jewish males of Russian origin. The speaker had seen one of these cases and had had one patient since who also fulfilled these requirements. He thought this point was not sufficiently emphasized in most of the textbooks.

DR. ELLIOTT stated that Dr. Foerster saw a case of erythema multiforme with Dr. Wile a few years ago that he was much interested in, particularly as the patient had recently been treated with alkalies. The patient had recurrent attacks of the iris type. Each attack was more severe than the preceding one and they became more frequent. The last two attacks, before alkali was instituted, were accompanied by marked gastro-intestinal symptoms and lesions of the kidney, as was evidenced by large numbers of casts and blood in the urine. Blood was taken and found to be twice as toxic to guinea-pigs as normal blood. Shortly afterward the patient was put on alkali and the eruption cleared up immediately. In the previous attacks it had taken from three to six weeks, but the alkali treatment cleared up the condition at once. They usually gave potassium citrate or sodium bicarbonate.

DR. STOKES said apropos of the neurotic type, he had always distinguished between the man who could not sleep and was nervous from that cause and the man who was the nervous, high tension type of individual, not the man who in the course of an attack was "all-a-tremble" with the strain. The three or four cases on which he based this observation were in the men who were feeling their best between attacks when they had no lesions at all.

DR. SWEITZER asked if any one had tried diet in dermatitis herpetiformis. He became tired of using arsenic and thought it might be well to try diet. He recently had a case in the clinic; most of them had been of a mild type and had not needed hospitalization. In most of the cases they tried a fat free diet and they noticed considerable improvement. The lesions left and the itching stopped to a considerable extent so that they could be sent out to business again.

DR. QUINN said the subject had always been a stumbling block to him; it seemed to him if the patients got well they called the disorder dermatitis herpetiformis and if they died they called it pemphigus. He thought Dr. Lieberthal would remember the case he had shown several years ago which he afterward had under his care at St. Joseph's Hospital. The patient had what was supposed to be dermatitis herpetiformis, but what proved to be a fatal case of pemphigus. In the case spoken of by Dr. Stokes he thought the disorder was probably what Dr. Hyde would have called epidermolysis bullosa. He believed the dermatologists should get to a point where they would not always be describing some little variation in a lesion and put a new name on the disease. Some one had recently said that dermatology was becoming a science of nomenclature and not of real knowledge of skin diseases. They seemed to be making new names and dividing up the same disease. He thought it was at

times impossible to draw the line between Dühring's disease and pemphigus. He thought an attempt should be made to simplify the nomenclature.

DR. ZEISLER stated that he had done quite a little work with autoserum in Dühring's disease and it seemed to have very little beneficial effect, perhaps producing a slight amelioration of the itching. They had recently had a patient who had just received six injections of autoserum from another physician and who had a serious relapse. He had attempted to have patients keep track of their diet in an effort to find out whether there was any particular food which brought on attacks.

DR. AUNER stated that he had had a very limited experience in these cases, but in one case of what in his opinion was a dermatitis herpetiformis he was convinced he secured some effect from autoserum, and when he gave three injections in five days he secured a better effect than in giving a larger number distributed over more time.

DR. EISENSTAEDT said that two or three years ago a young woman came to his clinic with a typical case of Dühring's disease. He took her history rather carefully; she was a girl who was much heavier than normal and was unable to work; her mother supported her. He found that at the age of 24 she had not menstruated more than once or twice a year. He put her on corpus luteum in the hope of getting her menstruation regular. She menstruated regularly in two or three weeks and with this regulation of menstruation the Dühring's disease cleared up. Evidently with the reappearance of her menstruation as a result of the exhibition of corpus luteum there were certain metabolic changes which brought about an improvement.

Another point he wished to emphasize was that the textbooks all stated that pemphigus bullae arose from a normal skin; at least, from a skin which was not inflamed. He had seen one of Dr. Lieberthal's cases before the doctor saw it but did not make a diagnosis of pemphigus. When he saw the patient the lesions were merely vesicles arising distinctly from an erythematous base, but within a week the diagnosis of pemphigus could be made. He believed exactly as Dr. Lieberthal and Dr. Ormsby did, that in many of the cases it was advisable to postpone the diagnosis for a period of time.

DR. HARRIS had been impressed by the fact that there was a whole series of diseases going through the line from urticaria to pemphigus, including lichen planus and possibly dermatitis herpetiformis, in which bullae were found, and he thought they might have some relation to each other. The same cause was apparently present through the whole line and might be due to a metabolic condition. That was brought out by a case that Dr. Zeisler showed some time ago as a possible mycosis fungoides. A month later he showed a patient as a possible dermatitis dysmenorrhoea. That case cleared up entirely on a nitrogenous free diet and had remained clear ever since. As to the vegetative lesions, the same thing was probably true; he had never understood just why certain diseases formed vegetating lesions. In certain individuals this tendency was very marked. The same thing was seen in lupus vulgaris in which some of the cases developed vegetations.

DR. LIEBERTHAL, closing, thanked the gentlemen for their discussion. The etiology of pemphigus was so far not known. Yet one was so impressed with the rapidity of the course of some cases that an infectious item might be thought of.

The point raised by Dr. Cole that all of his cases of pemphigus foliaceus had been in the Jewish race, undoubtedly held true for all types of pemphigus. Dr. Lieberthal said that he had seen between thirty and thirty-five cases of the various forms and among these there was only one non-Jewish patient.

Case 4, described in the paper in which the lesions began in the mouth, developed a cutaneous pemphigus and died from it within about two months.

Dr. Quinn's case was interesting indeed. The patient was in the care of a general practitioner over six months. As she showed at the time of the latter's

examination a skin eruption, enlarged glands and a positive Wassermann, he subjected her to very intensive specific treatment, but her condition was growing worse under it. Thereupon she was referred to Dr. Lieberthal. The diagnosis was that of a lichen ruber acuminatus. In the course of one and one-half years under his care she improved considerably, until the last few months when the skin presented large oozing surfaces, with no indication of bullous formation. She then came under Dr. Quinn's care in the St. Joseph Hospital.

Dr. Harris had mentioned a case which previously was in the Michael Reese Hospital. If this should be the same as described by Dr. Lieberthal as Case 2 in the group, herpes gestationis, it would prove further that she suffered neither from pemphigus vegetans, nor impetigo herpetiformis.

The case Dr. Eisenstaedt mentioned was the second in the group of pemphigus. It was that of a woman, aged 24, and it showed how careful one must be in making a diagnosis. She had had lesions in the mouth for three or four months, and erythematous patches on the abdomen and legs, within which were groups of vesicles. The latter were very itchy and the most likely thing to think of was dermatitis herpetiformis, but on account of the lesions in the mouth care in the diagnosis was advisable. Afterward a perfectly typical pemphigus developed.

PARAFFIN PROSTHESIS. Presented by DR. ORMSBY.

The patient was a young woman, aged 36, who had had the disorder for five years. She was first seen in January, 1916, at which time the nodules and tumors had been present for three years and the record showed that the lesions began one year after the injection of paraffin. Surgical procedure was suggested and was followed out in certain areas now shown by scars. Following this roentgen rays were used, without much benefit. Beginning in July, 1916, radium was employed and considerable improvement had occurred under its use.

URTICARIA PIGMENTOSA. Presented by DR. ORMSBY.

The patient, a young woman, aged 30, presented the adult type of urticaria pigmentosa of three years' duration. The eruption had a sudden onset. The original papules were apparently still present and there was no appreciable change in their appearance. On the first examination the patient presented a generalized, evenly distributed, symmetrical, papular eruption. The lesions were most numerous on the forearms. The papules averaged pinhead size. They were slightly elevated and had a yellowish tinge. The palms, dorsal surfaces of the hands and the face were free. The complement fixation test at that time was contradictory, one laboratory reporting positive and one negative. After five months a biopsy was performed, sections of which were presented. There was a complete absence of mast cells. The disorder was accompanied by moderate subjective symptoms.

The second patient was a young woman, aged 21, presenting the same disorder which was present since birth. The lesions were generalized and symmetrical, but sparsely distributed. The typical reaction in this case may be demonstrated. Sections were exhibited under the microscope.

DISCUSSION

Dr. SWEITZER recognized the patient as the same one shown last year and thought it was one of the cases of urticaria pigmentosa without mast cells and that it belonged to the class called urticaria with pigmentation, which were slightly different from the cases in childhood. The patient had told him that she had not tried any dietetic treatment and if this was true he thought it would be a good idea to see if some dietary regulation would not prevent the appearance of new lesions.

DR. ORMSBY said that it had only been a short time since adult cases had been shown; he made the statement last year that it would be interesting if a group of adult cases could be shown to have no mast cells. Since then there had been a paper published that showed that there was an adult group with no mast cells, contrary to the findings in the childhood type. He did not believe it was an urticaria with pigmentation. The urticarial lesions were only in response to irritation, they did not itch and they were not an ordinary urticaria. His idea of the urticaria with pigmentation was an ordinary urticaria in which the pigmentation had been caused from irritation.

DERMATITIS REPENS. Presented by DR. ORMSBY.

The patient was a man, aged 27, who presented lesions of six years' duration. The lesion first occurred on the finger, suppurated and spread over the hands. At the time of examination in August, 1917, the lesions were symmetrical, well-defined, crusted and inclined to contain pus. There were also many small white pustules. The nails showed marked dystrophy. A rupioid lesion was present on the forearms. Similar lesions were present on each side of the neck. In spite of all treatment the patient had previously received the disorder persisted. On his arrival here two injections of salvarsan were immediately given; following this the areas were treated with roentgen rays. Since that time various local antiseptics, including aluminum acetate, and Dakin's solution had been employed. Many ointments, including Wilkinson's, a white precipitate, and salicylic acid had also been used and the quartz light had been given a trial, all without result.

DISCUSSION

DR. PARDEE asked if the disorder followed exposure to chemicals.

DR. ORMSBY, replying to Dr. Pardee, said that there was no exposure to chemicals. The lesions began in an infection on the end of the finger which followed an injury.

DR. STOKES said that about a year ago he saw a man who had a psoriasis of the hands of eighteen years' duration. The disorder was confined to the hands with the exception of one small area in the sacral region. The case was very similar in appearance to Dr. Ormsby's but there was no history of an injury. Dr. Ormsby's case was evidently not a psoriasis of the hands, but the sharply defined lesions had for the moment suggested that to him.

DR. COLE stated that he had recently seen a glovelike and shoelike psoriasis and these were practically the only lesions on the body. However, there were no vesicles, no pustules and no history of injury as in this patient. In that case the fingernails looked very much like those in this case.

DR. ORMSBY thought Dr. Stokes evidently did not see the primary lesions in this case, because they were all pustular. When ointment was used it removed all the crusts, and then the primary lesions showed. The pus was very white. He considered the case unusual. The disorder lasted for many years, usually beginning as an infection, and when it became generalized was fatal. He was satisfied that they were not ordinary infections like eczematoid dermatitis; they might be local infections in a susceptible individual. He considered the case an entity and not an ordinary infection.

LUPUS CARCINOMA. Presented by DRs. JOSEPH and ERWIN ZEISLER.

The patient was a man, aged 58, who presented a lupus vulgaris of forty years' duration. It began at the age of 18 on the nose. It was treated with caustics and salves for many years; was treated in London by Dr. Sequeira with the Finsen light in 1913 and 1915 with excellent results. The present trouble started as a nodule in the lupus scar on the cheek nine months ago. It was treated with vaccines and tuberculin for the past six months on the

diagnosis of lupus. The microscopic findings showed a typical squamous-celled carcinoma. The lesion on the cheek was curetted two weeks ago and was being treated with radium and roentgen rays.

CASE FOR DIAGNOSIS. Presented by DR. VARNEY.

The patient was a physician, aged 46. He presented an unusual symmetrical macular eruption. No treatment, other than a bland oil applied after a bath, had been given. He noticed the eruption some two years ago after a warm bath. There had been no perceptible scaling and the eruption had caused no constitutional symptoms, except mild itching in the last four months. The case was presented for diagnosis.

DISCUSSION

DR. FOERSTER was of the opinion that it was a case of Brocq's erythrodermia in small patches, the type most frequently seen. He believed there were a great many cases which were not recognized because they were very minor types and as very often there were no subjective symptoms, the lesions were not shown to the physician. The differential diagnosis was of interest in all of these cases because of their resemblance to the premycotic stage of mycosis fungoides.

DR. HARRIS agreed with Dr. Foerster and called attention to the lesion on the back which seemed to be clearing in the center. He thought there was only the one lesion of that character.

DR. SWEITZER believed it was an erythrodermia, particularly after viewing the microscopic section. The man had very little itching and very little scaling and he thought this was probably due to the fact that the patient took better care of the skin than ordinarily taken by such patients.

DR. VARNEY thanked the Society for expressing their opinions regarding his patient. The condition at present was about as when he first saw it four months ago. There was practically no scaling at any time. The plaques which Dr. Harris spoke of on the back impressed him as large for parapsoriasis. For the last four months the patient had complained of some itching, but it had never been sufficiently intense to keep him awake at night.

MULTIPLE BENIGN TUMORLIKE NEW GROWTHS OF SCHWEN-
INGER AND BUZZI. Presented by DR. SENEAR for DR. PUSEY.

This case was reported in detail in THE JOURNAL for September, 1917, pp. 582-588.

ACANTHOSIS NIGRICANS. Presented by DR. ORMSBY.

The patient was a girl, aged 16, who had had the disorder for five years. There were well-marked areas of pigmentation over the sternum and along the mammary folds. The lesions were slightly verrucous and in the axillae were nodules, some exhibiting warty changes. Hyperpigmentation was present also in the genital region.

DISCUSSION

DR. STOKES had the impression that these cases were not so rare as was formerly believed. He thought he had seen one such benign case this year, but he had not called it acanthosis nigricans.

DR. SHAFFNER said he saw the patient about a year ago and at that time there was some pigmentation in the axilla, under the breast and some in the groin. There was no hypertrophy at the time. He considered the case to belong to the polyglandular syndrome because of the (1) obesity, (2) moderate thyroid enlargement, and (3) the pigmentation. He had not considered acanthosis nigricans.

DR. McEWEN was impressed with the need in this case of differentiating the neck lesions from a pigmentary syphilid. The girl was dark, which made the resemblance more marked.

DR. VARNEY said he had never seen a benign type of this disease, and considered the case very interesting.

DR. ORMSBY stated that they had had the opportunity of seeing only one other case in their own work and, that case being a very marked one, he was glad to have a chance to discuss this one. The other patient was a boy, about 14, with lesions in the same areas as this patient, in the groin, about the perineal region and in the axillary spaces. There was marked pigmentation in these same areas and there were also some lesions in the mouth. The father owned a saloon and the boy drank more than a quart of whisky daily and much beer. He saw him six years afterward and the lesions had cleared up.

He was satisfied that there was a benign type of this disorder which occurred in children and the lesions always got well. The patient presented showed improvement in the lesions.

XANTHOMA PLANUM AND TUBEROSUM. Presented by DR. STILLIANS.

The patient was a Roumanian Jewess, aged 42, and had had xanthoma planum nearly encircling both eyes for the past twelve years. Two years ago she noticed the tumors on the nose. She had a "corset" liver for a long time; had very bad teeth and confessed an addiction to cigarettes. On either side of the bridge of the nose was a hard round nodule about 1.5 cm. in diameter, over which the skin was of normal color or slightly reddened, of normal texture, and movable. A smaller nodule at the left outer canthus was covered by dilated blood vessels. On the right side of the neck was a group of yellowish, flat-topped papules, which were movable with the skin.

DISCUSSION

DR. SWEITZER thought it would be a good plan to cut off the lesions, as they could be removed in that way better than any other.

DR. ORMSBY considered the case a typical xanthoma tuberosum, which was a tumor formation. He thought they all recognized the fact that the xanthoma planum was a degeneration process, and wished to know if the recurrence which happened when the lesion was excised was a recurrence in the same place. He thought it was rather hard to account for the degeneration of the muscle when the lesion had been removed.

DR. STILLIANS had found the case interesting because of the fact that the two conditions occurred together. He had never been able to convince himself that they were entirely different diseases. He had used radium without much effect.

DR. STOKES was interested in the possible influence of trauma on the development of the lesion in these cases of xanthoma for the reason that in a recent legal action in an accident case, he had great difficulty in evading an opinion on it. In that case there was a typical xanthoma lesion following trauma to the hand. He recalled the work of Anitchkow on experimental xanthoma and wondered if there were any similar experiences in cases of this sort in man.

SYPHILIS, ERYTHEMA INDURATUM AND LICHEN PLANUS. Presented by DR. STILLIANS.

The patient was a Polish woman, aged 33, who had had the nodules on the anterior surface of the wrists for several years. She was infected with syphilis three years ago and a year ago had a gumma of the palate, leaving a large perforation which was now closed by a hard rubber obturator. While taking potassium iodid for syphilis she developed the hard, brown indurations

on the backs of the legs. The one on the left leg had been treated recently by the quartz lamp. Her Wassermann reaction had been negative for about a year. She was on treatment at the time of presentation.

At the time of presentation she presented a dark red, hard nodule about 1 cm. in diameter and 0.3 cm. high, on the anterior surface of either wrist. They were somewhat hyperkeratotic and scaly at the top. On the backs of both legs, in the lower half, were large reddish brown indurated areas, not raised above the skin surface, irregularly shaped, from 5 to 8 cm. in diameter. In the center of one of these a rather sharply defined ulcer 1.5 cm. in diameter and about 0.5 cm. deep was seen. The other lesion was not ulcerated.

DISCUSSION

DR. McEWEN asked why Dr. Stillians felt the need of the diagnosis of erythema induratum; could not the nodules be syphilitic?

DR. VARNEY asked whether the erythema induratum had shown any improvement under syphilitic treatment.

DR. STILLIANS stated that the hard, dark brown plaques occurred under antisyphilitic treatment and had persisted in spite of all the treatment she had had, and thought since the large induration only occasionally broke down it gave him a good deal of justification for the diagnosis of erythema induratum. She had recently had a rather sharply defined lesion which looked like a gumma, which healed up afterward, but the induration did not heal. He thought it might have been a gumma in an indurated area. He had never seen a gumma with so much pigmentation and induration that persisted so long.

CASE FOR DIAGNOSIS. Presented by DR. McEWEN.

The patient was a man, aged 47, who presented a lesion situated on the nose which began six or seven years ago as a soft raised papule about the size of a large split-pea; a scale continuously formed. The increase in size was slow. Two years ago the lesion was excised. A recurrence followed. Eight months ago it disappeared under roentgen-ray treatment and had since recurred. The lesion consisted of a number of papules in an oval distribution within an area which was reddened, somewhat thickened and showed many telangiectases. The papules were soft and seemed fluctuating, but their content was not fluid. There were practically no subjective sensations. The patient had never been seriously ill, but was not rugged in health. There was no history of tuberculosis or of syphilis.

DISCUSSION

DR. HARRIS thought the case was a basal cell epithelioma which probably contained some cysts, although it was possible to get such an appearance without cysts.

DRS. SWEITZER and ORMSBY agreed with Dr. Harris.

DR. LIEBERTHAL asked if the process had been spreading.

DR. McEWEN stated that the disorder, according to the patient, began as a flat lesion which evidently had a scale. For a long time it was quiescent and some one advised him to have it removed; it was excised and then there was a recurrence. It had once been removed with roentgen rays, with recurrence which was much the same as before the roentgen-ray treatment was used. It began in the form of very small, reddish-yellow, soft papular units which were soft from the very start. They did not appear as hard nodules which were undergoing softening. His diagnosis agreed with that of Dr. Harris, but he had considered whether it could be an example of colloid milium.

MYCOSIS OF THE SCROTUM. Presented by DR. SHAFFNER.

The patient was a man, aged 22, who presented what appeared to be a new dermatosis, which was prevalent in the House of Correction. It always involved the scrotum and sometimes the penis where it came in contact with the affected scrotum. It never involved the groin as in *tinea cruris*. The disease had become endemic and seemed to be more prevalent in those working in the tailor shop. Itching was intense and the condition was very refractive to treatment. Scrapings had been negative for anything definite in the way of a mould and the cultures had yielded in many instances yeast cells all of the same type and in most instances in pure culture. Skin sections were negative for parasites. Several of the patients had said that on leaving the institution and wearing their own underwear the disease had spontaneously disappeared. Photographs and microscopic sections of several of the other cases were shown.

DISCUSSION

DR. FREEMAN thought that in the photographs which were shown there was an appearance of an *eczema marginatum* and wondered if the other patients had the same appearance. In the patient shown this was not present.

DR. HARRIS called attention to the fact that the disorder might be due to the mechanical irritation of the clothes. The *raphé* was depressed beneath the rest of the scrotum and was not affected. He had examined the section and it showed a very marked hyperkeratosis and some parakeratosis.

DR. SHAFFNER said he first saw the patient last May at the House of Correction and he was astonished to see how many cases were present there and how many had developed since. On first examination he thought it was an example of fungus disease, but so far he had not been able to find anything definite. He had grown a lot of yeast cells and that was all. There had been many cases of *eczema marginatum* and in those he had no difficulty in growing the *epidermophyton inguinale*. The men were certain that if they wore their own underwear the eruption would disappear spontaneously. They thought it might mean that there was something used in the laundry that was the causative factor or perhaps was of such a nature chemically as to permit the growth of a parasite if such was the etiologic factor.

CHANCRE OF LOWER EYELID. Presented by DR. SHAFFNER.

The patient was a woman, aged 38, with a lesion of four weeks' duration situated on the lower left eyelid. A nodule, markedly indurated, exhibiting a small ulceration was present. In addition a very large submental lymph gland could be palpated.

DISCUSSION

DR. FOERSTER considered it a chancre and understood the inoculation to have originated in the removal of a foreign body. He had seen a chancre under the external canthus which followed the removal of a foreign body by a physician.

DR. SHAFFNER said the case was simple and of only four weeks' duration. There had been no difficulty in finding the spirochete. The interesting feature was that the woman said her daughter had a very sore throat, and the daughter volunteered the information that she thought she infected her mother by removing a foreign body with her tongue. The daughter (also shown) presented a typical syphilitic angina, generalized lymphadenopathy and a fading papular eruption.

BLASTOMYCOSIS. Presented by DR. ORMSBY.

The patient was a man, aged 41, who presented a blastomycosis of fourteen years' duration. The first lesion occurred on the right thigh, near the scrotum

and appeared to be a red "pimple." This ulcerated and spread. The patient was treated for some years with potassium iodid and roentgen rays without much effect on the disorder.

He was first seen here in July, 1916. Treatment was followed out under the direction of his local physician for a year without improvement. In October, 1917, the patient returned, having evidences of a general infection. At that time he was practically bedridden. From then until the present he had had nine injections of salvarsan, with great improvement.

DISCUSSION

DR. HARRIS remembered the case from the previous meetings and thought the patient showed marvelous improvement under treatment.

DR. ORMSBY said the patient had had what appeared to be a hopeless blastomycosis, which was generalized.

SYRINGOMA. Presented by DR. SHAFFNER.

The patient was a man, aged 21, who presented lesions on the chest which had been present since early childhood. The lesions consisted of numerous pink, solid elevations of the skin, with no inflammatory characteristics, varying in size from a pinhead to a pea. The tumors were situated entirely on the anterior aspect of the chest, extending from the clavicle to the epigastrium. There were no subjective sensations.

Microscopic section showed a typical syringoma.

DISCUSSION

DR. McEWEN thought it was a syringocystoma, similar to a case Dr. Ormsby had presented several years ago.

DR. HARRIS stated that he had shown a patient with practically the same clinical picture in whom all the lesions had disappeared under roentgenotherapy, leaving no atrophy or any change in the skin.

DR. SWEITZER wondered what would be the best method of removing the lesions and thought it might be possible to use a cauterization outfit and remove them with very little scarring in that way. He believed the area was too large to be treated with roentgen rays.

DR. FOERSTER thought the case was similar to one shown by Dr. Ormsby several years ago which had cleared up under roentgenotherapy, and wished to know if the result obtained was permanent.

DR. ORMSBY considered his case interesting on account of the fact that the lesions were generalized and much larger than these. His patient had lesions on the face, including the lips, and while she had the lesions she did not perspire at all. After she recovered the function of perspiration was restored. It took four or five treatments as given at that time to remove any individual areas. She was treated all over and there had been no recurrence. She had been well for about ten years.

DR. SHAFFNER stated that the section which had been so much complimented was the work of Dr. Harris.

STERNBERG'S TUBERCULOSIS. Presented by DR. HARRIS.

The patient was a man. The lesions consisted of papulo-necrotic tuberculids with zoniform distribution. (The case had recently been shown at two previous meetings.)

DISCUSSION

DR. COLE considered the case very interesting and thought he would not have been able to make a clinical diagnosis. He thought this would not have been possible until there had been a study of the glands and of the blood, and

an opportunity to observe the case for some time. He believed these cases and the leukemias were very closely related. He had recently had a case of typical sarcoma of Kaposi with a lymphatic leukemia, and a white cell count of 150,000. He thought it was a question whether they were not all closely connected and an infection of the same type. He did not as yet agree with Bunting and Yates that it was a diphtheroid infection.

DR. HARRIS stated that the patient was very much better than when he was shown before and believed this was due to roentgenotherapy. A gland was removed and revealed the typical picture of caseous tuberculosis. Lesions were taken out in the zoniform area and showed tuberculosis of the skin. The question was whether it was a tuberculosis or a tuberculid. He had not been able to demonstrate the organism in the section.

CASE OF SCALY SCALP. Presented by DR. HARRIS.

The patient was a man, who presented scaly patches of the scalp which had been present for six years and were very resistant to treatment. The case had been shown at the annual meeting for several years. The extent of involvement varying from time to time, but always showing the closely adherent scaly patches in the scalp, which reacted to no form of treatment. Temporary improvement was obtained by the use of almost any irritating application.

DISCUSSION

DR. VARNEY considered the case interesting because Dr. Harris said he had tried everything in the way of treatment, without result. The infiltration of the lesions impressed him as a point of interest and deep for psoriatic lesions. The lesion had a clean cut margin and psoriatic scaling, and he thought it to be a psoriatic patch.

DR. FREEMAN thought it might be a lupus erythematosus or a psoriasis. The little patch on the ear was like lupus erythematosus, and he believed the entire eruption was more like a lupus erythematosus than psoriasis.

DR. HARRIS said he showed the case in an attempt to get some idea of treatment. The condition would clear up but immediately return. The scales were very adherent. The man had the same scaly condition of the scrotum. It was not a psoriasis. Some of the lesions disappeared spontaneously but they recurred. It was not a lupus erythematosus. There was no alopecia and no atrophy in any of the lesions, either after they disappeared spontaneously or after they were removed by treatment. Occasionally there was a very little itching.

SPOROTRICHOSIS. Presented by DR. HARRIS.

The patient was a bridge builder from Iowa, who had had the disease for about a year. He showed the typical lymphatic distribution of sporotrichosis involving the arm and leg.

DISCUSSION

DR. ZEISLER thought the lesions might be called sporotrichial gummas.

DR. McEWEN said he had noticed the atrophy of the muscles of the hand and wished to know the cause of it.

DR. HARRIS said that in the absence of Dr. Pusey he wished to register his objection to the term "sporotrichotic chancre" and "sporotrichotic gummata." The lesions were not gummas, to be sure they were nodular and underwent the degeneration the same as was the case in gummas, but they were not gummas. The atrophy of the muscles of the hand was probably due to an operation in the axilla.

MORPHEA GUTTATA. Presented by DR. ORMSBY.

The patient was a girl, aged 9, who had had the disorder for two months. The lesions occupied the original site, but showed improvement under treatment with roentgen rays. (Photographs were exhibited.)

DISCUSSION

DR. VARNEY thought the condition was a very interesting one and typical of morphea guttata.

DR. COLE asked what treatment Dr. Ormsby was using.

DR. SWEITZER asked if a section had been made to establish the diagnosis. The case reminded him of a lichen planus sclerosus.

DR. ORMSBY said as to the differential diagnosis, in the cases of lichen planus sclerosus there were always more papules and comedonlike plaques which were black. If they were not there, there was the opening where they had been and in this case this condition was not present. The lesion was more white. He had done a lot of work on those two types of lesions and helped confuse the matter a few years ago. There were two diseases, one the morphea guttata which this case was, and the other the lichen planus of Hallopeau. There was no such disease as "white spot" disease. There had been no histologic study of this case.

ACNITIS. Presented by DR. QUINN.

The patient was a man, aged 25, by occupation a street car conductor, who presented lesions of two and a half months' duration. The onset was rapid, following a chilling of the face. The lesions had remained about the same since the first few days. The Wassermann reaction was negative, and venereal infection was denied.

Microscopic examination revealed *Staphylococcus pyogenes*, *albus* and *aureus*. The lesions were confined to the face and ranged in size from a pinhead to a split pea.

DISCUSSION

DR. FOERSTER thought it was an acnitis with a tuberculosis. If the lesions were small they were called lupus. He believed all of the lesions were caused by the tubercle bacillus.

DR. QUINN thought he had never seen an acnitis which looked exactly like this, but believed that was the diagnosis.

DR. ORMSBY thought the picture of the disorder was so typical of the acnitis cases on record that it looked as if it had been taken from them. The lesions were all the same, the grouping was in the same areas, and all the cases he had studied were exactly like it. As to the tuberculous side of it he stated that with the most careful work that had been done there had been no successful inoculation from the tissue and the tubercle bacillus had never been found.

CASE FOR DIAGNOSIS. Presented by DR. QUINN.

The patient was a man, aged 26, an Austrian, married, who presented a disorder of seven years' duration, which consisted of atrophic scarring of the forearms and lower extremities. Wassermann reaction and urinalysis were negative. The patient complained of burning of the skin which was present almost continuously. There was an urticarial reaction on various parts of the body. He denied that the scarring was due to a burn or that it was present previous to three years ago, and said that it was gradually extending.

DISCUSSION

DR. QUINN stated that the man had had the condition for seven years and the question was brought up as to whether the scarring was not the result of a burn. He had been under treatment principally by neurologists but did not seem to improve. The scarring was present on both arms, more marked on one. At times there were some lesions which resembled urticaria which were temporary. The man was a hypochondriac, but he wished to know what was causing the scars.

DR. COLE thought the fact that the area was shiny and more or less symmetrical might indicate a possible dermatitis chronica atrophicans.

DR. McEWEN did not believe the scarring was taking place from anything that was happening at present. He had looked closely at the right hand and arm and there was no condition of scarring present. On the left arm the scarring was higher up on the arm than the active lesion, and he believed it was the result of a burn in early life. The man was a neurotic and was probably "enjoying poor health." He had probably learned that he was more interesting as a patient if he denied being burned.

DR. FREEMAN agreed with Dr. McEwen, and said he knew of no skin condition of that nature that had not been preceded by other changes.

CARCINOMA ON ROENTGEN-RAY SCAR. Presented by DR. McEWEN.

The patient was a colored woman, aged 49. Six or seven years ago a lump appeared in the breast, which was diagnosed as carcinoma and removed. Later the growth recurred and the patient was again operated on two years ago. Following the first operation she received ninety-one roentgen-ray treatments of thirty minutes' duration every second day. At present there was a palm-sized plaque of induration, seated on an atrophic area of several times that size; this area of scarring was sprinkled with telangiectases and was obviously due to roentgen-ray exposures. The case was submitted for suggestions as to treatment—whether by excision, or by roentgenotherapy.

DISCUSSION

DR. ORMSBY stated that he saw a case about six months ago of a very extensive roentgen-ray burn in which there were ulcerated lesions over the chest. He had suggested that they use hot saline applications, which had been urged by Dr. Foerster. The patient could not stand that form of treatment and the doctor used Dakin's solution and the entire area healed up. It was the best result he had ever seen in a chronic roentgen-ray burn.

DR. McEWEN said the impression seemed to be that the case was presented on account of the roentgen-ray burns. He called the attention of the members to the fact that it was distinctly a carcinomatous condition and the question was as to treatment—whether there should be further operation or more roentgen ray.

DR. LIEBERTHAL stated that in cases of roentgen-ray burn he had often seen wonderful relief from the quartz lamp and suggested that it be tried, using the white light with short exposure and a distance of about 6 inches.

DR. ORMSBY said in many cases a single exposure to radium entirely cleared up the keratoses in four weeks. All the cases in which this treatment had been used were physicians who had followed instructions exactly, and the result was all that could be wished for. When using a one-fourth strength applicator which contained 5 mg. and covered a surface of a little less than 1 inch, it was kept on the area for eight hours and filtered through a silver filter.

DR. LIEBERTHAL believed more roentgen-ray applications would aggravate the condition.

DERMATITIS. Presented by DR. STILLIANS.

The patient was a girl, aged 18. She had suffered with a dermatitis for over a year, which appeared first on the chest. This promptly cleared up on treatment with vaccine. Since that time it had recurred in various areas, especially around the genitalia, at irregular intervals without any apparent cause. At the time of presentation it was present in the axillae, crural region and feet. When first seen it involved the axillary regions, the arms and groins.

The eruption had been extremely refractory to treatment. It consisted of rather sharply defined areas of lichenification in the axillae and groins of dark brownish-red, with small papules along the border, in places. The lesion on the dorsum of the left foot was weeping.

DISCUSSION

DR. FREEMAN asked if there was a vaccine therapy in this case.

DR. VARNEY stated that he had found the *Staphylococcus pyogenes aureus* more often than the *Streptococcus pyogenes*. As for vaccine administration he had obtained better results with the polyvalent stock suspension embodying strains from similar pyogenic dermatoses than with the autogenous suspension. The stock suspension produced better therapeutic results. If there was no evidence of infiltration in the inoculated area within forty-eight hours, a second inoculation was made. There should be a definite time to repeat the inoculation, the initial inoculation beginning with 75,000,000 to 100,000,000, repeating the inoculation in five times twenty-four hours, not five days, and increasing the dosage in each inoculation so as to bring about immunization in each individual case. This immunization was not only shown by clinical improvement, but by Arthus' phenomena.

BLASTOMYCOSIS. Presented by DR. HARRIS.

The patient was a negro, aged 24, who had had the disease for sixteen years. It commenced as a small pustule on the penis and spread to the pelvic region and since had involved the lower abdomen, buttocks and thighs. The central part of this large area was scar tissue but around the periphery was seen the characteristic lesions, from which the organisms were cultured.

CASE FOR DIAGNOSIS. Presented by DR. STILLIANS.

The patient was a woman, aged 30, who entered the hospital with a suspicion of trichinosis; three of her children were in the hospital with this disease. In addition to the probable trichinosis, lesions were discovered on the chest and back, one of which had been present for twenty years. There was also a lesion on the left arm. The lesions on the breast had been present for about four years.

The lesions consisted of two frank keloids in scars on the left shoulder and right breast. In addition to these, a number of flat-topped, round nodules were present, one of which, in the epigastrium, was dark brown in color. The others were dull red and not shiny, not tender, but movable with the skin. The scalp was covered with thick, yellowish scales.

DISCUSSION

DR. HARRIS stated that the woman had had a tumor removed from the right shoulder eight years ago; some time later lesions appeared on the chest. Some parts of the scar looked like a keloid; the tumors had varied in size from a split pea to a button. They were brownish-red or blue, and the question was whether they were spontaneous keloids.

DR. SHAFFNER thought the lesions were keloids.

DR. SWEITZER thought they might be sarcomas. Dr. Harris could tell definitely after examining the section which had been removed on the previous day.

DR. FREEMAN believed the fact that one lesion appeared in an old vaccination scar would not rule out a keloid. The ones on the breast did not look the same as the ones on the left arm and shoulder.

DR. QUINN thought they were keloids.

DR. COLE thought it was a possible sarcoid.

DR. HARRIS stated that the woman had had about eight lesions on the breast, all of which showed the same picture. He thought it was probably a case of spontaneous keloid, although it was rather peculiar. In one place there was an infiltration of new growth in an old scar. He would like to make a biopsy.

TUBERCULOSIS OF THE NOSE. Presented by DR. HARRIS.

The patient was a man, a Syrian, aged 37, with a tuberculous lesion which had entirely destroyed the septum. The disease started five years ago, shortly after reaching this country. When he entered the hospital the under surface of the tip of the nose and the adjacent part of the upper lip was the seat of a verrucous growth of a rather soft consistency. The bony and cartilaginous septum had been entirely destroyed so that the tip of the nose could be lifted up. Biopsy revealed the typical tuberculous changes and the disease reacted to roentgen-ray therapy. The organisms were cultured.

DISCUSSION

DR. QUINN stated that as the microscope had shown it to be tuberculosis, it must be so, but it looked to him like a late syphilitic infection.

DR. HARRIS said the patient came into the hospital with what looked like a verrucose tuberculosis with a history of the disease having come on within a few months after reaching this country. He made a diagnosis of tuberculosis cutis and biopsy had proved it to be the case. The patient was clinically well under roentgen-ray treatment and was transferred to the nose and throat department for treatment of the nasal mucosa. Since then he had more roentgen-ray therapy, and was now much worse than when he was transferred.

LUPUS ERYTHEMATOSUS. Presented by DR. McEWEN.

The patient was a man, aged 37, who presented lesions of long standing, which involved the face and hands. Those on the face had been present eight years; those on the hands less than two years. The lesions were typical and the diagnosis unquestioned. The case was submitted for discussion of probable prognosis.

DISCUSSION

DR. McEWEN said that the lesion on the face had been present for about eight years, but some of the lesions were much more recent. The diagnosis was lupus erythematosus but the patient was shown on account of the hand lesions with the object of having the prognosis discussed. He cited the case of a woman who had come to the hospital with lupus erythematosus on the face and hands. Under hospital care she improved greatly, went out and returned after a few days with a marked exacerbation and within a month died of tuberculosis. He had in mind the possibility that this man might be beginning to show dangerous systemic extension. He thought he showed more lesions now than when he came into the hospital ten days ago.

DR. FREEMAN thought the case was interesting from the point of localization.

DR. ORMSBY stated that he had just had the same experience with a case. A patient they had for several years had lesions on the face and a few on the arms, then developed an acute attack and at that time looked like a patient with multiple erythema. She was covered all over with lesions. He believed that as the hands were affected the prognosis should be guarded. If a general attack resulted it would probably be serious.

TUBERCULOSIS OF SOFT PALATE IN A SYPHILITIC. Presented by
DR. STILLIANS.

The patient was a man, aged 23, who had syphilis of one year's duration. The soft palate showed groups of pinhead-sized ulcers, from which tubercle bacilli had been obtained.

DISCUSSION

DR. ORMSBY thought the case was important because every once in a while they had to pass on such cases. He had seen one such patient recently, and in the last two or three years he had observed several. The lesions involved the mucous membrane of the throat and mouth. He saw a case, two or three years ago, in which the lesions were largely of the throat and the nose and the throat specialist who had examined the patient had made a diagnosis of tuberculosis. The Wassermann test was strongly positive. For three months he was given antisyphilitic treatment; then the tubercle bacillus was demonstrated. On the previous day he had seen a patient with a tuberculous throat and tongue. Two or three of the cases seen in the last few years had cleared up under treatment with radium or roentgen rays. The results with this therapy had been very good when the lesions were limited.

DR. HARRIS stated that the tubercle organism had been found in the lesions. It was interesting to note how easily these organisms were found in mucous membrane lesions and how difficult it was to find them in lesions of the skin. He had seen miliary tuberculosis develop, following administration of potassium iodid.

DR. McEWEN asked what effect there had been on the lung lesion from the administration of salvarsan.

DR. COLE stated that he gave a man with an old latent tuberculosis a few treatments with salvarsan, first 0.3 gm., then 0.4 gm., and then 0.5 gm., and about three weeks after the last treatment he became ill and later died of miliary tuberculosis. He had no potassium iodid.

DR. FOERSTER said he had had an unfortunate experience recently with acute miliary tuberculosis, developing after salvarsan, in a recent syphilitic with pulmonary tuberculosis which condition was supposed to have been cured. In a case of tuberculosis of the knee joint, the young woman being confined to bed with the joint in a cast, a laryngologist was consulted for some throat trouble, shortly afterward a chancre of the tonsil developed and was not recognized until the patient developed very marked secondaries. She was given 0.2 gm. and 0.3 gm. of old salvarsan; her knee joint began to flare up, she grew stuporous, and died of tuberculous meningitis about four weeks later.

DR. STOKES stated that on Dr. Wile's service he had had an interesting experience in the case of a nurse with pulmonary tuberculosis with bacilli in the sputum and a positive Wassermann reaction. When under salvarsan she gained weight and at the end of her course of treatment was remarkably improved. He believed that the majority of unfavorable effects from salvarsan had occurred in febrile and rapidly progressing cases. It was his practice to give salvarsan intensively in glandular tuberculosis with associated papulonecrotic tuberculids and he had yet to see anything but good effects from the treatment.

NODULAR SYPHILIS. Presented by DR. McEWEN.

The patient was a man, aged 46, who presented contracted scars over the left side and back. The patient was distinctly syphilitic and showed a few active lesions of the tertiary type. He was presented because of the unusual extent and hypertrophy of the scars.

Necrologic

ALFRED FOURNIER, 1832-1914

By J. DARIER, Médecin de l'Hôpital Saint Louis

PARIS

Translated with the author's permission, by JOHN E. LANE, M.D., New Haven, Conn.
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In Paris, Dec. 25, 1914, the acknowledged leader of syphilography in France and in the world, the indefatigable and productive worker, the affable and sympathetic man, Professor Fournier, died.

The din of battles raging throughout the whole of Europe, the countless sorrows and the patriotic duty which kept every man fit for military service with the colors, scarcely permitted the colleagues and the pupils of the teacher, the friends of the physician and those indebted to him, to properly estimate the extent of the loss which they had just sustained; most of them were unable to testify their attachment to him and to show their sorrow by taking part in his obsequies. It was a cortege of modest number, which, without pomp and without funeral oration, accompanied to his last resting place the man whose name and whose teachings no syphilographer, no educated physician, for nearly half a century, has been able to ignore.

The time has come for sketching the history of his life, so beautiful and so full of usefulness, for summarizing the acquisitions which science owes to him and for offering to his memory a tribute of admiration, of respect and of gratitude. But alas, to be able to render unto him who was my teacher the homage which is his due—I should need to possess his talent.

HIS LIFE WORK

Fournier's career is a rare example of perseverance in one single course, of struggle and effort toward a single goal. To the zealous and tenacious strife which in his early manhood he commenced against one of the worst plagues which afflict humanity, he consecrated the whole of his strength and of his time. Endowed with fineness and clearness of intellect, with a logical mind, with patience in clinical observation and in the accumulation of evidence, with elegance of style and of speech, he employed all these qualities in the service of this apostolate. For Fournier was really an apostle, and when he attacked this "modern plague," this "social menace," syphilis, he felt that he was fulfilling—not a simple duty—but a veritable mission.

His entire work, too, revolves in a definite orbit: those of his studies which deviate from it, although marked with the masterful qualities of their author, give the general impression of being accessory and unessential; then too, they not infrequently converge toward the chief object of his preoccupation by a little frequented path.

It is interesting to try to find the way in which his thoughts and his activity became oriented in this direction; and indeed, the story of his life and some traits of his character easily supply the explanation.

EARLY YEARS AND STUDENT LIFE

Jean Alfred Fournier was born in Paris on May 12, 1832, of a Parisian family which, as far as I know, had no physicians among its members.

Entered in the Institution Jauffret, of which he always retained the most grateful recollection, he there studied the classics with great success; it was there that he obtained his marked taste for the humanities, especially for the Greek and Latin authors, whom he translated at sight and from whom he delighted to quote long passages which had remained in his memory.

In 1855, he was appointed Interne des Hôpitaux, and was assigned to Ricord's service at the Hôpital du Midi. This entirely accidental circumstance must have had a decisive influence on his career. He very soon became the favorite pupil of this excellent and witty teacher, whose luminous teaching and attractive personality had immediately charmed him. He found himself initiated into, and also soon taking part in the heated discussions which at this time agitated the clan of students of the venereal diseases.

These impressions of his early career could not have been effaced by his transference as an intern to the service of Chassaignac, of Germain de See, of Bergeron, of Boucher de Villejouy and of Ricord. His doctoral thesis on "Syphilitic Contagion" (1860) clearly demonstrates it.

Next came the period of competitive examinations which, thanks to his ability and industry, did not delay him long. The same year, 1863, sees him at the age of 32, Médecin des Hôpitaux and Professeur agrégé de la Faculté.

APPOINTMENT AS A TEACHER

From this time his career is clearly marked out and will develop harmoniously. Supplying in place of Professor Grisolle in 1866 and 1867, he begins teaching in the clinical chair of the Hôtel-Dieu. Appointed chief of service in 1868 at the Hôpital de Lourcine, where he was to spend eight years, he begins his unofficial course of lectures on syphilis. This course was, in 1871, officially designated Cours complémentaire de la faculté, and was transferred to the Hôpital Saint Louis in 1876.

By his appointment to the chair of "Clinical Professor of Cutaneous and Syphilitic Diseases" (1880), of which he was the first incumbent, as well as by his election to the Académie de Médecine (1879), he had attained the highest ranks of the medical hierarchy.

The success of his teaching and the reputation of his academic lectures are well known. His presidency of the Société française de dermatologie, his promotion to various ranks in the Légion d'Honneur, of which he was commander, were also the cause of an entirely legitimate satisfaction to him.

It would be impossible for me to name the innumerable learned societies, both French and foreign, of which he was a member, and the numerous official commissions of which he was the life. It will suffice to recall how dear to his heart was the "Society of Sanitary and Moral Prophylaxis," of which he was the founder and president. Neither must I forget in this place the zeal which he showed in doing his share of the editing of our "*Annals*" (i. e., *Annales de dermatologie*), and the constant care which he took to maintain the proper proportions of syphilography and of dermatology in its columns.

FAMILY LIFE

So, loaded with titles, with honors and with activities, having universal renown and public esteem, completely happy in his family life, delighting to surround himself with friends and devoted pupils in his home, which was harmonious and adorned with many beautiful objects, he was able to watch the approach of old age with serenity.

But what man can be called happy before his death? His last years were darkened by the long and cruel sickness of her who had been the companion and the charm of his life; infirmities came to him, bringing him the anguish of feeling his robust health and his noble intellect gradually fading away. His faculties were dimmed and he died peacefully, without a full realization of the tragic events which were going on around him, and he had no share in the stifling emotions which held his country in their grip. He had finished his task, and now I wish to show how greatly he honored his country by his work and by his character.

CONTRIBUTIONS TO LITERATURE

Fournier's first publication was "Lectures on the Chancre" of his teacher Ricord (1867), lectures which he edited and amplified with many notes and much personal research. This book maintains the duality of the virus of chancre, and supports the theory on the clinical differences and on the results of the auto-inoculation of the two varieties of chancre. Two years later the editor of these lectures will show that the instructive method of "confrontation" due to Bassereau, formally establishes this theory.

In the meantime he takes up some related problems which need solution. In considering the "Cephalic Chancre" (1858) he demonstrates that the extreme rarity of the soft chancre on the face is not due to a transformation of virus, but to a relative immunity of this special terrain to one variety of chancre.

In his doctoral thesis on "Syphilitic Contagion" (1860) he asserts that the suppurative form of secondary eruption is contagious and that it produces a hard chancre. In another paper he studies the incubation of syphilis, especially cases of long incubation.

In rereading these works of his youth, which date from the time of his internship, it is surprising to find the methodical and clear mind, the bent of mind and even the style, which characterize the man in his maturity. He is not content with vague formulas. He wants the naked truth. This truth does not interest him simply for its own sake as a conquest of the unknown, for the self satisfaction of the investigator, but on account of the practical results which will be gradually derived from it. Questions of scientific theory assuredly do not leave him indifferent, but we feel, even at this early period, that the chief object in view is social hygiene, that is, prophylaxis.

However much less important, in comparison with his work on syphilis, his writings on general medicine and on dermatology may be, they, nevertheless, do not deserve to be forgotten.

His thesis of agrégation on "Uremia" is a critical review of a subject chosen by the examiners, of which little was then known. In the thesis is found not only what was known about the subject, but also a clear opinion of the direction in which research might be pursued.

His article on "Alcoholism" in the *Dictionnaire de Médecine et de Chirurgie Pratique* (1864) is clearly stamped with his didactic talent. Moreover it is noticeable that in this matter also he sees safety in prophylaxis.

DERMATOLOGICAL WRITINGS

As to his articles on dermatology, most of them are the reproduction of clinical lectures on well known subjects such as herpes, urticaria, hydroa buccalis, etc., but the subjects are presented in a very personal manner. There are other monographs on new subjects; there is a very detailed study of the eruptions on the genitals which are seen in diabetics, for which he coined the name "diabetides"; the description of an acute eruption which he calls "herpes vacciniformis of young children" and which is of interest because of its frequently syphilitoid appearance; several notes on the "eruptions due to anti-pyrim," of which he was the first to point out three special forms, the pseudo-

syphilid of the palm, the antipyrin roseola and black penis. His name will also be associated with the question of "fulminating spontaneous gangrene of the penis" and with the first description of "recurrent buccal herpes in syphilitics."

It will be noticed, and it is entirely natural, that the dermatological types which particularly attracted Fournier's attention are those which have some points of contact with syphilis. Neither is it at all surprising that he should have been interested in mercurialism and iodism.

At the time when he was supplying for Grisolle, circumstances led him to busy himself with "Gonorrhea and Its Complications." He wrote an article on this subject for the *Dictionnaire de Jaccoud*, and the celebrated discussion on gonorrheal rheumatism (1866) at the *Société Médicale des Hôpitaux* made it the topic of the day. In his article he has not completely freed himself from the theory of his teacher Ricord: While he declares that blennorrhagia is a special inflammation, different from simple urethritis, he does not admit the existence of a specific virus and accepts the theory that an individual may transmit blennorrhagia without having it himself. As for gonorrheal rheumatism, he rejects the idea of its being a mere coincidence or the awakening of a diathesis, and supports the theory of "urethral rheumatism."

Moreover, it must be recognized that before the advent of bacteriology, it was almost impossible to solve this problem by clinical resources only; that the description he gave of gonorrheal rheumatism is remarkable, and truly that of a master hand; that besides he was the first to assert (1868) the existence of a "gonorrheal sciatica," often coexisting and sometimes alternating with the articular manifestations. It is to him also, that is due the recognition of the "nodular, deforming and amyotrophic form" of gonorrheal rheumatism; he reverted to this subject in 1889, showing that this complication, though rare indeed, is one of the most terrible results which may ensue to darken the prognosis of this disease. Finally it was he who sketched, and later completed in 1885 and 1886, the first description of "spontaneous or metastatic blennorrhagic conjunctivitis," which is not the result of pus being carried to the eye, but which is habitually coincident with the rheumatic manifestations. This special form of conjunctivitis is of little gravity, evanescent and easily undergoes resolution, and his interest in it was that it may serve as tell-tale evidence in advance of any confession or local examination.

A TEACHER OF SYPHILOLOGY

As soon as he became physician of Lourcine, Fournier began the methodical teaching of syphilology in which he excelled. His lectures, prepared with extreme care, were intended for publication. In 1873 the first edition of his "Lectures on Syphilis, Especially Syphilis in Women" appeared.

In scrutinizing the rich clinical material which passed before his eyes, the author had noticed some curious and little known accidents which are sometimes produced during the first stages of the disease. He published special articles on "primary induration," the "indurated pseudo-chancere," the "tendinous synovites," "analgesia of secondary syphilis," "secondary adenopathy," etc. All that, in addition to many other things, is found in his "Lectures on Syphilis."

The striking thing in this volume, which is devoted to the primary and secondary stages only, is that in addition to admirably precise descriptions of indisputable syphilids, the author devotes considerable space to the general condition, and to visceral and functional accidents; he lingers long not only on the painful manifestations, but on analgesia, paralysis, algidity, hyperidrosis, on syphilitic fever and typhoid, on palpitation, anorexia, bulimia, emaciation and cachexia, which, he declares, are commonly met with.

It is easily understood how the reading of these chapters might excite the reproach, which was many times made against Professor Fournier, of "seeing syphilis everywhere" and of giving it an "exaggerated importance in pathology."

This criticism, which did not fail to reach his ears, had not the power to move him much. His reply to it is well known. It was first by demonstrating, with his exact and carefully differentiated descriptions, that he knew syphilis better than any one else; then by demonstrating in successive publications, the specific origin of several diseases or morbid states, frequent and severe, whose etiology was entirely obscure before he took them up. So this systematic tendency to look for syphilis everywhere, and to attribute an infinite number of ills to it, which was reproached as a defect in him, was on the contrary a fertile directing idea, in that it led him to real discoveries and contributed to the progress of medical science.

I may be permitted, before treating the subjects in which Fournier was clearly an innovator, to mention briefly the questions of syphilography to which his lectures or writings brought only an amplification of our knowledge. Here I shall not regard the chronological order of his publications.

They are: "Malignant Secondary Syphilids," of which he admits three forms, confluent, exfoliating and pigmentary; the *roséoles de retour* which recur so easily, and which are especially seen in patients who have been abundantly treated; "tertiary glossitis" in its two forms, sclerotic and gummatous; "gummata of the soft palate" and of the pharynx; "tertiary phagedenism"; "nasocranial osteitis" with its results often so grave; tertiary lesions of the anus and rectum, with the new description of the "ano-rectal syphiloma" and the study of the pathogenesis of stricture of the rectum; "syphilitic sarcocele," in which he points out secondary epididymitis, the sclerotic and gummatous forms; "syphilitic phthisis," failure to recognize which is so prejudicial to the patient; and finally he was one of the first to point out the part played by syphilis in the production of aneurysm, as well as its possible effect on the heart.

BOOKS ON THE ORIGIN, EVOLUTION AND TREATMENT OF SYPHILIS

But it is the large problems, the vital problems which attract him. When Fournier has reached the full maturity of his strength and talent, with twenty years experience and a well established reputation, he attacks the worst results of syphilis: the accidents of the nervous system which kill, which make invalids and demented; syphilitic heredity which is responsible for countless abortions, for hecatombs of new-born children, and for the birth of so many pitiful monstrosities.

The appearance of his book on "Syphilis of the Brain" (1879) really caused a sensation. While there was a vague idea of the existence of cerebral syphilis, there was far from being a clear idea of its diverse forms and of its real frequency. The author clearly points out the truly specific lesions and the lesions that result indirectly; under the name of initial forms he describes six of the more common clinical types; among them is mentioned the mental form, pseudogeneral paralysis, which will be the starting point for researches (1893 to 1895) on the syphilitic origin of general paralysis.

Then come in rapid succession two books of extraordinary importance; one on "Locomotor Ataxia of Syphilitic Origin" (1882), the other on the "Pre-Ataxic Stage of Tabes of Syphilitic Origin" (1885), followed by several articles and communications on hereditary syphilitic tabes and on various clinical manifestations of syphilitic tabes in general.

The relative frequency of syphilitic antecedents in tabetics had indeed been noticed; but it must be recognized that previous to Fournier's lectures delivered in 1875 and 1876 and collected by F. Dreyfous, and especially previous to the powerful argument of his book of 1882, no one had established a relation of cause and effect between syphilis and Duchenne's disease. Furthermore, this theory encountered a very active opposition, which was very slow in giving up the contest; I think that I am not mistaken in stating that even up to the time of his death, Professor Charcot actively opposed this theory. Nevertheless, harmony gradually came and Fournier's view is no longer contested. This discovery alone would have been sufficient to immortalize his name.

His researches on syphilitic tabes were to lead him to search also for a syphilitic origin of general paralysis, because of the manifest relationship existing between the two diseases. For ten years he pursues his search, accumulates proof and publishes nothing until he is convinced. Finally he commits himself in two articles in the *Bulletin Médical* (1883), and in a brilliant communication to the Académie de Médecine (1894), of which the proofs, arrangement and real eloquence were of such a nature as to make a strong impression on the thinking medical public. His opponents, to be sure, made an energetic and prolonged opposition, but what could they present against a mass of arguments furnished by the frequency of syphilis in general paralytics, by the correlation and frequency of syphilis and of general paralysis in different social surroundings, by the common association of general paralysis and tabes, and above all by the decisive argument of Regis' juvenile general paralysis?

Yet it is noticeable that, as was the case with tabes, Fournier did not go so far as to claim that all cases of general paralysis were syphilitic; he was satisfied that the connection, the relation of cause and effect should be acknowledged and that it should be conceded that "syphilis certainly was one of the most common and even the predominating cause of general paralysis." I cannot refrain, at this point, from saying that one of the last joys of his life was to learn of the discovery, made by Noguchi, of the spirochete in the lesions of general paralysis.

But twenty years ago a very impressive objection was raised against the new theory, namely, the objection that was then called the *faillite* (bankruptcy, failure) of antisiphilitic treatment in tabes and general paralysis. This fact, which he had noticed, led him to accept the theory of "Parasyphilitic Affections" (1894) which merits our attention for a moment.

Syphilis in addition to the extensive and complex group of "specific accidents" causes more and different things; it is also responsible for a large number of morbid manifestations which are syphilitic or heredito-syphilitic in origin, without however being of syphilitic nature. These parasyphilitic affections have a dual character: They may be produced without any syphilitic taint and, on the other hand, they are not influenced by mercury and the iodids as the true specific accidents are.

With this definition as a starting point, the author was logically led to associate and to group under the same rubric, such affections as the pigmentary syphilid, neurasthenia, hysteria, tabes, general paralysis, epilepsy, some progressive amyotrophies, hereditary dystrophies, hydrocephalus, Little's disease, etc. And this list does not exhaust the subject; he says that reasons will probably be found later for placing in the same category: diabetes, hemoglobinuria, some tertiary erythemas and perhaps lymphadenoma and one variety of alopecia areata. As to leukoplakia with the frequently resulting cancer, Fournier formally claims them for the same group at the International Congress of Dermatology in 1900.

That is certainly an astounding classification and one which presented many vulnerable points to the critics: they were not wanting, and I believe that many, even of those who fully accepted the theory of parasyphilitic affections, did so with some uneasiness. Yet, when we reflect on the genesis of this theory and on the import it might have in the mind of its author, we may imagine that for him the point in question was not the discovery of a law of general pathology, nor a revolution in nosology, but simply a conquest in the field of etiology. He did not pay much attention to explaining whatever mystery there may be in the opposition between the "origin" and the "nature" of a disease; he had an entirely different point of view; he was satisfied with having charged syphilis with several additional atrocities. His increasing hate of this plague is justified by this theory and he is more and more convinced that the necessary defense against it is an energetic repressive treatment and prophylactic measures which are of public interest.

The gravity of the prognosis in syphilis is chiefly due to its manifestations in the nervous system. The deduction from his "Researches on Tertiary Syphilis" (1889) is, that of all the organic systems, this is the one which most frequently suffers; if the specific virus is poisonous to the whole body, it is above all a "poison to the nervous system." But, still worse, we shall see that by its hereditary character syphilis is raised to the rank of a "poison of the race" and a "factor in depopulation."

Fournier's work on "Syphilitic Heredity" probably constitutes his greatest claim to fame; Besnier considered it the most remarkable part of his work.

In his communication to the *Académie* on the influence of syphilis on infant mortality (1885) he showed how deadly it is and proposed a number of defensive measures, which were approved by a vote of that body.

But it is his excellent book on "Late Hereditary Syphilis" (1886) which brings forth the greatest number of new and important ideas. To be sure, the early hereditary manifestations, with which children born of infected parents are threatened were not unknown; but fundamental ideas in regard to late manifestations were very vague and incomplete. The author in this book shows how astonishingly frequent they are, and how numerous and varied according to the organic system which is attacked. It had to be recognized that in innumerable accidents, which had been referred to scrofula, or in explanation of which an overlooked infection of infancy was invoked, were really hereditary in origin. He points out with perfect clearness the elements of the positive diagnosis of hereditary syphilis, describing with precision stigmata of different kinds, cranial and nasal deformities, saber-shaped tibia, and especially dental changes, which are very minutely studied. At the time of the publication of this work the author states that he has, thus far, not met with a single indisputable evidence of hereditary syphilis originating in a patient over 28 years of age, though he very correctly foresees that some will be disclosed in the near future.

In relation to the concrete study of hereditary syphilitic accidents, the question of "Syphilitic Heredity," of its forms and of its laws, has a considerable scientific and practical interest, on account of the complexity of the problems involved. In a series of lectures on the subject, edited by his pupil, Dr. Portalier (1891), these problems are analyzed, dissected and examined from all sides.

Naturally the question of paternal heredity, of conceptional syphilis, of syphilis by *choc en retour* and Colles-Baumès' law, especially attracted his attention. But besides he insistently recurs to the high infantile mortality; in addition to the transmission of syphilis *en nature*, of fetal cachexia which results in "unfitness for life," he points out the hereditary dystrophies and malformations which form another category of deadly results. The exposition of these imperfections or retardations of development, dystrophies or monstrosities were more fully treated in a memorable discourse at the *Académie* (1889). The possibility of heredity of the second generation is discussed and formally declared acceptable in the "Treatise of Syphilitic Heredity"; but Professor Fournier does not yet consider it definitely established.

We may imagine his feelings of paternal joy and pride when he saw several of the problems which had attracted him, solved in the way he had foreseen by the work of his son, Dr. Edmond Fournier! It will suffice to mention the exhaustive study of the dystrophic stigmata, the proof of hereditary syphilis in the adult and in the aged, and the demonstration of hereditary syphilis of the second generation.

The reception accorded his works on syphilitic heredity, not only in our own country but beyond our frontiers, was a great satisfaction to Professor Fournier. His book was everywhere received with admiration and gratification; a translation was published in Vienna, somewhat enlarged by notes and discussions, which in no way enhanced its value. He took up the subject again several times, and quite recently in his pamphlet "Four Mistakes That Should Not Be

Made," he emphasizes the medical consequences of the principles which he had established and pleads "for the unfortunates who are threatened with a heritage of syphilis." With him veneration for science is never separated from the love of humanity.

Having completed the consideration of Fournier's most important achievements, his work on the origin, evolution and treatment of syphilis remains to be reviewed.

The origin of syphilis, and especially of nonvenereal syphilis, always keenly interested him. There are, indeed, aside from heredity, numerous ways of contamination which menace husbands and wives, nurses, physicians, midwives, etc., in a word, a long list of innocent victims. This "unmerited syphilis" is much more frequent than is suspected by those persons who believe that venereal disease is a monopoly of the fast set (*monde galant*) and the fruit of debauch. Such cases run great risk of being wrongly diagnosed and of increasing the number of cases of "unrecognized syphilis" (*syphilis ignorées*); for various reasons they are not properly treated, and hence their prognosis is appreciably more unfavorable.

Several times Fournier came back to the subject of conceptional syphilis. In his book on "Syphilis and Marriage," the success of which is shown by two successive editions (1888-1890) and by six translations, this question is treated along with all those which are related to the many dangers of family syphilis.

"Syphilis in Married Women" (1887) and "Syphilis in Innocent Women" (1906) were used as arguments in favor of prophylaxis before the Académie.

He was also always disturbed by the fate of wet nurses, infected by the children entrusted to them and by the various consequences originating in contamination of this sort; he codified, so to speak, the duties incumbent in such cases on the physician, on the nurse and on the medicolegal expert. He also considered the inverse situation, that of a nurse in the contagious stage infecting her suckling, and he reports the history of a family epidemic in which there were seven victims.

We must also recall his book on "Vaccinal Syphilis" (1889) which certainly helped to bring about the substitution of animal for human vaccine—universally accepted today; his article on "Medical Contagion" (1891) which is transmitted by the physician, with the aid of his hands or his instruments, or which is contracted by him and is often manifested by a chancre located at the eye or on the fingers; and his large experience as a medicolegal expert which brought under his observation about all the different ways in which syphilis may be transmitted.

Some questions related to nonvenereal syphilis, professional or accidental, are incidentally considered in his "Lectures on Extragenital Chancres" (1897) which were collected by Edmond Fournier. In this well illustrated volume is found the personal description which the author gave of chancres of the fingers, of the eye and of the tonsil, which is today classical. The question of prognosis of extravenereal syphilis, reputed to be graver, is also clearly asked and answered; he concludes that syphilis of this variety is no graver except for individual circumstances of the contaminated subject and on account of the habitually insufficient treatment.

His publications relative to the "Evolution of Syphilis" are numerous and treated with evident predilection.

With great clinical sense, he analyzed the factors in the gravity of syphilis (1886) and described secondary malignant syphilids (1893).

But tertiary syphilis, the conditions which favor its outbreak, its manifestations and its consequences, offered a greatly superior interest and was the object of several of his most important researches. His "Researches on Tertiary Syphilis" (1889) and his "Early Tertiary Syphilis" (1894) demonstrated from personal statistics the unsuspected fact that tertiary accidents are met with as soon as the end of the first year in hardly less than 8 or 10 per cent. of the cases; that they are constituted chiefly by cutaneous lesions and

nervous manifestations; that myelopathies are relatively frequent and grave since they caused death in sixteen of fifty-two cases. In the same year the author introduces us to the very late manifestations of tertiary syphilis, those which put in their appearance thirty to fifty years after the chancre.

The sequel of "Early Tertiary Syphilis" is "Late Secondary Syphilis" (1906), of which Fournier gives the picture that he drew from the analysis of his collection of 19,000 case histories! Contrary to the classic opinion, cutaneous syphilids of the secondary type a little modified in their appearance may often be observed in the fifth or sixth years, and after that with decreasing frequency. That is strange, but something more important follows: in the same way genital, and especially buccal mucous patches may appear even as late as the tenth year and perhaps later, though no later ones were authenticated. This explains late contagion of which definite observations are known. It is treated, but insufficiently treated syphilitics and especially smokers who present these anachronistic manifestations; the therapeutic and prophylactic indications to be deduced are evident.

The book on the "Treatment of Syphilis" (1893-1909), as is easily believed, had a considerable success: three editions did not diminish it. When the first appeared, mercurial injections had already come into vogue; the third preceded by a short time the introduction of the new arsenical compounds. Every general and individual question of treatment is studied. The principal interest is in disputed questions—the practice of the excision of the chancre, the relative value of the various mercurial injections, etc. The general tendency of the author is conservative; he refrains from enthusiasm and hesitates to abandon established practices for inadequately proven innovations. He cannot make up his mind to advise the use of gray oil as the routine method of treatment; I know how much he was impressed by the frequently extraordinary efficacy of calomel in certain cases, yet he retains his preference for pills and inunctions and especially for the mixed treatment with mercury and the iodids.

Especially are to be praised the recommendations from his vast experience in regard to the general direction of treatment. At the beginning of his career it was the general practice to treat accidents until their disappearance; syphilids were treated, but not the disease. He, who had been able to convince himself that mercury in addition to its curative effects is endowed with a preventive action, had, on this fact based his "chronic intermittent treatment," which was accepted and to which he remained faithful. We should not neglect to emphasize the support which was given to his theory by the method of control by the Wassermann reaction.

At the end of his career, instructed by his researches on the consequences of tertiary syphilis and of the parasyphilitic affections, he advised prolonging the treatment beyond the time previously fixed; he advised interspersing biennial courses of treatment between the fifth and tenth years in order to intensify the preventive action of mercury at the most dangerous periods. "Sterilize" syphilis at its onset and prevent it from provoking dangerous accidents and from being transmitted to descendants is the goal which one should attempt to reach. He showed that with clinical tact and with perseverance the equivalent of a cure may be obtained.

Professor Fournier had dreamed of uniting all the substance of his teaching in his great "Treatise of Syphilis," of which the first part appeared with the collaboration of his son, in 1898. Three other parts have appeared since then, including the primary and secondary stages, and a study of only a part of the accidents of the tertiary stage. It appears to me entirely superfluous to insist on the value of this magnificent work, as it is in the hands of everybody.

Do you wish to know what the recreations of this indefatigable and persevering worker were? To translate, himself, to annotate and to publish edi-

tions de luxe of the works of the first observers of the French disease, Jean de Vigo, Jacques de Bethencourt and Fracastor; to write a "Letter of Jean de Vigo from Beyond the Grave," or a "Lecture on Syphilis in 1830"; he allowed himself no others.

III. CAMPAIGN OF SOCIAL DEFENSE

At last, I come to that part of Fournier's work which is, so to speak, its crown, its conclusion, its fulfilment, namely, his campaign of social defense by the prophylaxis of venereal diseases.

We have seen, in the preceding pages, the tenacity with which he persisted in this lofty aim from the beginning to the end of his career. The frequency of syphilis, its terrifying power of diffusion, its indirect ricochets on so many innocent persons, its terrible consequences to the individual and to the race, all impose an urgent duty on him who has demonstrated them. The resources which medical treatment furnishes against such a plague are without doubt of great value, but yet wholly inadequate. To attempt to struggle alone in one's hospital service and office, however enlightened, however active, however devoted to the task one may be, is to be resigned to being only a stone in a torrent, in a place where a dam is needed.

He understood that what was needed was the beginning of a crusade; he raised the flag himself with the enthusiasm of conviction, and kept it high and steady till his last breath.

Seizing every opportunity that was offered, creating them himself if necessary, he made the hall of the Académie de Médecine and those of the International Congresses resound with his eloquent and urgent appeals; with his articles, his reports and his books he urged the public authorities to rouse themselves from their apathy and urgently prayed them to come to the aid of the medical profession in safeguarding the public health.

He did still more. In March, 1901, he founded under the name of the "French Society of Sanitary and Moral Prophylaxis," a veritable "League Against Syphilis." In addition to hygienists, he gathered into it lawyers, philosophers, men of letters, all the men who were inspired with ideas of progress, of justice and of charity.

In this way he wished to create an agitation, a public opinion and to increase his own moral influence, with the object of popularizing the idea of the venereal peril and of obtaining the enforcement of practical measures which seemed to him indispensable. That it was he who furnished the facts for the authors who attempted to enlighten the public on the dangers of "damaged goods," (*l'avarie*), is an open secret. Those who most need the teaching are the young people who expose themselves to contamination, frequently with so little knowledge of their danger; so it was for them that, at the request of the "Society of Prophylaxis," he edited the pamphlet entitled "For Our Sons When They Reach Twenty," which is a small masterpiece of tact and real humanity. To him also we chiefly owe the lectures and the administrative and medical regulations designed for the protection of the army and navy.

He collected his chief publications on the subject into a large volume, the "Prophylaxis of Syphilis" (1903). In it he reviews the various means which may be of use in attaining the end in view. The means of a moral and religious nature, which are so respectable, but unfortunately of so little practical value, inspired some well written pages. He expects better results from the surveillance of prostitution by administrative and police measures, but he energetically recommends that they shall be placed on a firm legal, not an arbitrary basis.

We remember that the controversies incited by his plan of regulation caused him to break a lance with the "abolitionists." He maintained that the great gravity of venereal diseases, and especially the menace with which they threaten the wife and the child, gives society the right of defending itself

against them. To the argument based on the liberty and self-respect of the prostitute, he replies that the public interest often imposes a limitation on the liberty of everyone, for example military service and the management of unsanitary trades and industries.

The medical methods he recommends are the hospitalization of patients, surveillance of wet nurses, animal vaccination; he recommends not only the treatment of syphilitics but their instruction in the dangers to which they expose their associates. He criticizes the organization of the venereal clinics of our hospitals, and suggests the establishment of numerous, less public dispensaries. He insists especially on the need of giving physicians longer and more complete instruction in syphilis, recognizing that, in the last analysis, it is they who must play the chief rôle in the preservation of society.

In conclusion, I will briefly describe the professor, the writer, the teacher and the practitioner.

Few men have possessed the taste and talent for teaching to the same degree as did the teacher of Lourcine and of the Hôpital Saint Louis. To impress on his pupils the truths to which his experience had led him, was not enough for him; he constantly devoted himself to deducing from them the necessary conclusions and the rules for practical guidance. So he strove not only to instruct but to persuade. It might be said that the majority of his lectures and almost all of his academic addresses are veritable pleas.

His ease of speech, the eloquence and correctness of his style, were quite remarkable. In order to be sure of communicating his thoughts with all their shading, and of causing them to penetrate better into the minds of his auditors, he liked to use synonyms, gradation and superposition of analogous terms. The arrangement of his discourses, their architecture, if we may use the expression, appeared to him not unworthy of his care. He had so great a gift of visual memory and of mental reproduction that he could literally repeat the text of his lectures, which he delivered almost in the manner of extemporaneous talks, as he turned the pages before him, rarely glancing at them.

The success of his teaching was considerable; into his always filled amphitheater crowded a great number of his former pupils, as well as physicians from every land who, attracted by his universal renown, were sure not to be disappointed either in the subject matter or the form.

His lectures were so well prepared that they could be printed without revision. In fact, the greater part of his publications is only the exact reproduction of lectures or academic discourses; as we read them we seem to hear him still.

The material for his work was in large part derived from his hospital practice; he always found time on his service to study thoroughly and from all angles the cases which were within the bounds of the researches he was at the time engaged in, or which were of such a nature as to open new horizons.

But a no less important part of his material came from his private practice. From the very beginning of his career, following the example of his teacher, Dr. Puche, he had formed the habit of keeping a written note of each visit of each of his patients; this habit made it possible for him to amass in fifty years a veritable pathologic treasure. He says somewhere, "I made myself a collector of syphilitic data, just as a fad or special interest invites others to become collectors of paintings, of books, of Japanese articles, of autographs, of snuff-boxes, etc. . . . Thanks to these notes, I was able first, to convince myself and later to convince my colleagues of the pathogenetic relationship which attaches tabes, and general paralysis, and leukoplakia, and the specific hereditary dystrophies, to syphilis."

With renown, a large practice came to him; for half a century innumerable patients from all over the world filed into his consulting room, attracted by his exceptional knowledge, but also attracted by his good sense, by his perfect honor, and by the radiance of benevolence which emanated from him.

Who can tell how many poignant distresses, how many private tragedies were confided to him! How many misfortunes were averted or alleviated by his fatherly advice or by some comforting words!

As if the result of an obsession, the unfortunate cases of which he was a witness, always brought him back to that hatred of the plague, which syphilis is, and to the methods for conjuring away its evil results, in short, to prophylaxis. And the stereotyped exclamations which recurred on the lips of his patients, thoughtless evil doers as well as innocent victims—"I didn't know," and "Why, then I am done for"! led him to popularize his teachings for the sake of humanity. The little pamphlets which are dated during the last years of his life, entitled "*Doit-on le dire?*" "*En guerit-on?*" "*Pour en guerir,*" "*Pour nos Fils,*" "*Trois Fautes à ne pas Commettre,*" were certainly the result of this feeling of compassion for humanity, which in any case is suffering, and which is often ignorant and sometimes guilty.

If, in the evening of his career, Fournier looked back over his life, which had been wholly consecrated to work and to duty, over the trail which he had blazed, over his masterly and enduring work, he certainly was able to feel a legitimate pride; but I believe that the title, which above all others he would have liked to see given him, is that of benefactor of mankind.

ERNEST GAUCHER
1854-1918

Prof. Ernest Gaucher died in Paris, Jan. 25, 1918, of an obliterating thrombotic aortitis, following an attack of pneumonia, the crisis of which had been passed.

He was an intern of the Paris Hospitals in 1877, took his medical degree in 1882, Chief of a Medical Clinic from 1882 to 1884. Among his teachers were Potain, Bouchard, Landouzy, Hillairet, Bucquoy and Fournier.

He became physician of the Paris Hospitals in 1886, physician of the Hôpital Saint-Antoine in 1892, and Professor *agrégé* in the same year. In 1902, he was appointed Professor of Cutaneous Diseases and Syphilography, of the Faculty of Medicine of the University of Paris, succeeding Alfred Fournier.

At the outbreak of the war, although his age freed him from all military obligations, he desired to be a military physician, and was made Chief Physician of the Villemin Hospital. He took full charge of its organization and was at its head until his death.

He received many medical honors: He had been Vice-President of the French Society of Dermatology and Syphilography; President of the Medical Society of the Hospitals of Paris; President of the General Association of French Physicians; he was elected a Member of the Academy of Medicine in 1910; and on July 14, 1917, he was made an Officer of the Legion of Honor *au titre militaire*, in recognition of his services as Chief Physician of the Villemin Hospital.

Professor Gaucher was a constant writer. Among the books he published are: "A Theoretical and Practical Treatise on the Diseases of the Skin (in collaboration with Hillairet); "A Treatise of Dermatology" in Brouardel and Gilbert's "Treatise of Medicine"; and a "Manual of Syphilography" in collaboration with several authors.

In 1906, he founded the "*Annales des maladies vénériennes,*" and was always one of its chief contributors.

It is unnecessary to mention the titles of his numerous articles on dermatology and syphilis. It should, however, be noted that he became medically known by his doctoral thesis on "Primary Epithelioma of the Spleen," a disease which soon became known as "Gaucher's Disease."

When Gaucher succeeded Fournier, it was quite natural that he should have devoted most of his attention to syphilis, and his writings since that time

have dealt chiefly with that disease. While it is perhaps unfortunate for Gaucher it is still inevitable that the two syphilographers should be compared.

Fournier was one of the great leaders of the medical world of the nineteenth century, and the importance of his work is becoming more and more apparent as it becomes better known and as it is confirmed by the scientific demonstrations of recent years.

Gaucher, on the other hand, did little lasting constructive work, and even among his friends during his life time, was considerably discredited as a syphilographer because of his innumerable erratic, unwarranted and even rash statements about that disease.

It is unnecessary to mention more than a few of his best known aberrations. Several years ago he gave appendicitis a syphilitic origin, and was always convinced that he was right in so doing. Infantile paralysis he had also classed as syphilitic. He saw hereditary syphilis in nearly all deformities, even to nevi, and was convinced that separation of the upper median incisors was a stigma of the disease. It seemed as if he could not admit that any other disease might cause dental malformations.

Gaucher was always pugnacious, and was never disturbed at fighting without allies. He was an enthusiastic opponent of the injection of the insoluble salts of mercury in the treatment of syphilis, and delighted to rehearse all the accidents that they caused.

But the opposition he made to them was as nothing compared with the rabid and frenzied fight which he, almost alone, waged against salvarsan—which he called “that *boche* commercial product”—from the day of its first use till the day of his death. In the same number of the “*Annales des maladies vénériennes*” that announced his death, one of his own articles on the subject appeared, in which he said, “we must remain faithful to the traditional therapeutics of syphilis, remain faithful to mercury, which is, today as formerly, the chief—I was about to say the only—remedy for syphilis.”

Two months before his death he published an article entitled “606, or the German Poison.”

Of course, no one took his writings or his lectures on this subject seriously.

One of the most striking and original personalities of the French medical world has disappeared. Gaucher was a man of many contrasts, a combination of characteristics rarely united in the same individual. He was essentially a fighter (or perhaps “scrapper” would better express it) of an overbearing disposition, rough in his dealings with friends and foes, and yet with a kindly heart. One of his closest associates described him as *cq bourru bienfaisant*.

An intimate friend who was with him at the end, says of him: “A rough exterior, a man difficult to get along with, an excellent heart, charitable feelings; these are his essential characteristics. His high moral worth, his integrity and his professional uprightness, the rectitude of his sincere soul, earned the respect of all of his confrères, even of those who were separated from him, scared away by his tirades and his uncompromising scientific opinions.”

Another says: “A charitable heart under a mask of crabbed harshness; open and devoted friendship, with a disagreeable disposition; upright, and with strong faith in scientific and moral truth, under a disturbing veil of paradox and of scepticism; he was greatly loved because he was good and charitable.”

Professor Gaucher visited the United States several years ago, and carried back with him the most pleasant recollection of his visit and of the friends he made among the physicians here—a visit of which he delighted to talk.

It was undoubtedly a result of the interest in America aroused by this visit that the writer, though at the time unknown to him, was cordially received, and, during a year's sojourn in Paris, treated as a friend by Professor Gaucher. During that time he learned to value the man and the friend, under the mannerisms which were at first rather disturbing.

J. E. L.

Correspondence

AMERICAN NAMES FOR LICENSED SYNTHETICS

To the Editor:—Professor Stieglitz, Chairman of the Subcommittee on Synthetic Drugs of the National Research Council, has asked me to send you a letter for publication.

On behalf of the committee, he urges that you advise the use of the Federal Trade Commission's recommendation to employ the official name of the licensed drugs in connection with all written articles and advertisements, and if the proprietary brand name is to be used, to place this side by side with the official name.

The official names so far adopted by the Federal Trade Commission are:

Arsphenamine for the drug marketed as: salvarsan, diarsenol and arsenobenzol, etc.

Neosarsphenamine for the drug marketed as: neosalvarsan, neodiarsenol and novarsenobenzol, etc.

Barbital for the drug marketed as veronal.

Barbital-sodium for the drug marketed as medinal and veronal-sodium.

Procaine for the drug marketed as novocaine.

Procaine nitrate for the drug marketed as novocaine nitrate.

Phenylcinchoninic acid for the drug marketed as atophan.

The following is the letter submitted by Dr. Stieglitz:

W. A. PUCKNER,

Secretary, Council on Pharmacy and Chemistry, American Medical Association.

It appears that in certain quarters the attitude is taken that the local anesthetic sold as procaine is not identical with that marketed as novocaine. The Subcommittee on Synthetic Drugs of the National Research Council believes it important that this misunderstanding should be corrected and hence offers the following explanation:

The monohydrochloride of para-amino-benzoyldiethyl-amino-ethanol, which was formerly made in Germany by the Farbwerke, vorm. Meister Lucius and Bruening, Hoechst A.M., and sold under the trade marked name novocaine, is now manufactured in the United States. Under the provisions of the Trading with the Enemy Act, the Federal Trade Commission has taken over the patent that gave monopoly for the manufacture and sale of the local anesthetic to the German corporation, and has issued licenses to American concerns for the manufacture of the product. This license makes it a condition that the product first introduced under the proprietary name "novocaine" shall be called procaine, and that it shall in every way be the same as the article formerly obtained from Germany. To insure this identity with the German novocaine, the Federal Trade Commission has submitted the product of each firm licensed to the A. M. A. Chemical Laboratory to establish its chemical identity and purity, and to the Cornell pharmacologist, Dr. R. A. Hatcher, to determine that it was not unduly toxic.

So far, the following firms have been licensed to manufacture and sell procaine:

The Abbott Laboratories, Ravenswood, Chicago.

Farbwerke-Hoechst Company, New York.

Rector Chemical Co., Inc., New York.

Calco Chemical Company, Bound Brook N. J.

Of these, the first three firms are offering their products for sale at this time, and have secured their admission to New and Nonofficial Remedies as brands of procaine which comply with the New and Nonofficial Remedies standards.

While all firms are required to sell their product under the official name "procaine," the Farbwerke-Hoechst Company is permitted to use the trade designation "novocaine" in addition, since it holds the right to this designation by virtue of trade mark registration.

In conclusion: Procaine is identical with the substance first introduced as novocaine. In the interest of rational nomenclature, the first term should be used in prescriptions and scientific contributions. If it is deemed necessary to designate the product of a particular firm, this may be done by writing procaine-Abbott, procaine-Rector, or procaine-Farbwerke [or procaine (novocaine brand)].

JULIUS STIEGLITZ, Chairman,
Subcommittee on Synthetic Drugs, National Research Council.

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DERMATITIS HERPETIFORMIS: ITS ETIOLOGY AND RELATIONSHIP TO CERTAIN MEMBERS OF THE BULLOUS GROUP OF DISEASES, ESPECIALLY TO ERYTHEMA MULTI- FORME AND TO PEMPHIGUS

M. B. HARTZELL, M.D., LL.D.

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PHILADELPHIA

Although the history of dermatitis herpetiformis as a well-defined and generally recognized morbid entity properly begins with the classic writings of Duhring, certain forms of cutaneous disease which had been long before described by various writers, especially the French, under various names as distinct and separate affections, may be readily recognized at the present time as belonging to this malady; and among these is the affection which, distinguished by a vesicular and bullous eruption resembling herpes in many of its features, was described by Bazin under the name arthritic hydroa.

ETIOLOGIC FACTORS

Gouty Diathesis.—As the qualifying adjective indicates, this author regarded arthritic hydroa as a manifestation of the gouty diathesis, and declared it was seen only in those who had symptoms of gout. The gouty nature of this affection was not accepted by subsequent writers; indeed, I have not been able to find any author who agreed with Bazin.

Nervous Origin.—Tilbury Fox, commenting on hydroa, asserted his belief that "the nervous system must be directly concerned in the production of the eruption as it occurred essentially in the overworked, the fagged, the depressed and the excited."

Later, Crocker asserted that his experience did not lend much support to Bazin's opinion as to its gouty character, but he was inclined to agree with Tilbury Fox that nervous exhaustion was at least a predisposing, if not a direct, cause in many instances. Indeed, until a comparatively recent period the nervous origin of all forms of derma-

titis herpetiformis was generally accepted and is even yet regarded by many writers as extremely probable.

Brocq, to whose tireless industry we owe much of our present knowledge concerning all forms of the malady, writing elaborately and at length, in 1888, regarded it as well established that the nervous system plays some rôle in the mechanism of the production of the cutaneous phenomena, although he, at the same time, admitted our ignorance as to whether the rôle of the nervous system is a primary one or only secondary to the action of micro-organisms or some leukomain. In support of the view that the nervous system plays an important, if not the chief, rôle in the production of the malady he states that quasi-neuralgic symptoms frequently precede or accompany the eruption; that patients frequently have a history of nervousness either personally or in one or other of the parents, and that the eruption usually presents more or less symmetry in its distribution and arrangement. He reports a number of cases to illustrate the influence of the derangement of the nervous system in its causation of which the following may be taken as examples: One patient was a pianiste who had been fatigued by overwork and was very nervous in consequence; another chewed tobacco excessively and was a chronic masturbator, and had a brother who had some kind of nervous disease; a third was an epileptic and had a sister who was very nervous; in four cases the eruption had followed violent emotional disturbance, once after sudden terror and in three after a fit of violent rage.

Elliot has likewise reported two cases in which the disease followed the shock produced by sudden death in the family of the patient; in one instance the eruption appeared almost immediately and in the other after a few days. I think it must be agreed, however, that the evidence afforded by cases such as the foregoing is far from conclusive and lacks much of the preciseness necessary to establish scientific facts.

Duhring in his unfortunately never completed treatise on "Cutaneous Medicine," which may be regarded as containing his mature views on the subject, expresses the opinion that "the disease is due to various causes, some of which are obscure in their origin and seat, but that the nervous system is directly responsible for the cutaneous manifestations."

Lesions in Central Nervous System.—In a few instances lesions of the central nervous system have been found in connection with eruptive symptoms which bore more or less resemblance to dermatitis herpetiformis. Bristowe observed a case of caries of the upper dorsal vertebrae accompanied by a circinate erythematous and vesicobullous eruption confined to the upper portion of the trunk and the upper extremities, with severe generalized itching. Meier has also reported

a case of eruptive disease presenting the symptoms of dermatitis herpetiformis, in which pathologic alterations in the nerve branches and the cord were found. It is only proper to add, however, that in neither of these cases was the diagnosis of the cutaneous affection beyond question.

Pregnancy.—Much emphasis has been laid on the occurrence of a particular form, herpes gestationis, during pregnancy, as supporting the theory of its nervous origin. As is well known, symptoms referable to disturbance of the nervous system are very common during gestation, and it is concluded that the cutaneous symptoms are due to this disturbance; but it scarcely need be pointed out that the relationship between pregnancy and the nervous and cutaneous disorders is capable of being explained in quite another manner. There is little or no doubt that the nervous symptoms are due to a toxemia which is so frequently present during pregnancy and the cutaneous symptoms are probably of like origin.

Glycosuria.—Some years ago Winfield reported a small series of cases (four) in which glycosuria was present, and he regarded this association as affording additional proof of the neurotic character of the disease; but this association may readily be accounted for in a number of ways without invoking the aid of the nervous system since glycosuria is by no means always the result of nervous derangement.

COMMENT

While there can be but little doubt that a large share in the production of the eruptive phenomena of dermatitis herpetiformis belongs to the nervous system, it is far from certain that, as many authors assert, the primary cause resides in it. In recent years we have learned much concerning certain organic substances of complex composition produced by putrefactive processes, errors of metabolism, and by growth of pathogenic bacteria which produce more or less decided toxic effects on the various tissues and organs of the body; and, in some instances, these toxic effects on the skin are capable of ready demonstration. There is a constantly increasing amount of evidence that many if not all of the members of the group of diseases characterized by a bullous eruption as the chief cutaneous symptom, are due to such toxins; and the view that dermatitis herpetiformis is primarily a toxemia has gained many adherents in the past decade or two, some of those even who still adhere to the theory of its nervous origin admitting the possibility of a primary toxemia. Hyde, in the last edition of his well known treatise, after enumerating a number of possible causes relating to the nervous system remarked: "It is possible the irritation of the nervous system may be due in every case to a toxemia."

INFLUENCE OF TOXEMIA

One of the most strikingly suggestive facts pointing to the probable toxic nature of the malady is the occasional occurrence of eruptions presenting all the features of dermatitis herpetiformis after the ingestion of drugs, a number of such instances having been recorded by reliable observers in recent years. Danlos has observed an erythematous and vesicobullous eruption follow the administration of potassium iodid accompanied by intense pruritus, which continued to appear for six weeks after the suspension of the drug. Leredde, who studied this case microscopically, found a marked eosinophilia and numerous eosinophils in the fluid contents of the blebs, and was of the opinion that it was a true case of dermatitis herpetiformis.

Balzer and Sevestre have reported a case of acute mercurial intoxication resulting from inunctions which was followed almost immediately by an erythematobullous dermatitis beginning in the groins and axillae, spreading later to the anterior portion of the trunk and the scalp; the eruption was accompanied by stomatitis and albuminuria. At the end of a month, when recovery seemed about complete, a new outbreak appeared, characterized by erythematous plaques on which bullae developed, occupying the whole body. Similar attacks continued to appear at short intervals for two years, each attack being preceded by a marked diminution in the quantity of urine excreted and accompanied by a moderate eosinophilia.

MacLeod has also reported a case due to mercury in a boy, age 5 years, who had taken a large dose (9 grains) of mercury-with-chalk. The day following an eruption consisting of circinate groups of papulovesicles appeared in the lumbar and adjoining regions. The first attack lasted about three weeks; this was followed by an intermission of a fortnight when a new attack appeared, lasting about five months.

Tenneson has observed a case which followed the administration of salicylate of soda. The disease began as an urticaria which after two weeks was replaced by a vesicular eruption which displayed the features and followed the course of dermatitis herpetiformis. Some time later an acute exacerbation was produced by a second administration of the drug.

Admitting that there may be two opinions concerning the exact place to be given these cases, although they have been reported by skilled observers with large experience, they nevertheless demonstrate in the most conclusive way that an eruptive disease presenting the symptoms and pursuing the course characteristic of dermatitis herpetiformis may be produced by toxic substances reaching the circulation by way of the gastro-intestinal canal or, as in one of the cases reported, by way of the skin itself.

In a few instances the affection has been observed in those suffering from a toxemia arising from the absorption of bacterial toxins from some localized focus, that is, it had its origin in a focal infection; and in some the toxic character of the eruption was strikingly demonstrated by its disappearance when the focus of infection was removed. Bogrow has reported a remarkable case of this kind. A woman with cancer of the uterus accompanied by a foul vaginal discharge also suffered from a cutaneous affection presenting the symptoms of dermatitis herpetiformis. The eruption began to show signs of improvement when a disinfecting douche was employed and disappeared abruptly when the necrotic mass was removed surgically.

POSTVACCINAL ERUPTIONS

Reference may be made here to certain cases of postvaccinal eruption which have been reported at various times by a number of observers as examples of dermatitis herpetiformis following vaccination (Dyer, Pusey, Bowen and Stelwagon). Bowen, commenting on the nature of the cases which he observed, says: "It is not improbable that a toxin developed by the vaccination in certain predisposed individuals is responsible for the cutaneous appearances." He at the same time admits that the relationship of these eruptions to dermatitis herpetiformis may be disputed. Whatever differences of opinion may exist among dermatologists as to the proper place of these eruptions there is general agreement that they are of toxic nature.

RELATIONSHIP OF AUTOINTOXICATION

It is a well known fact that practically identical eruptions may be produced by different toxic substances. As a familiar example we may refer to urticaria which may arise from the ingestion of such diverse substances as fruit (the strawberry), shell-fish and drugs; and it is quite possible, indeed extremely probable, that the symptoms of dermatitis herpetiformis may be produced by a number of toxic substances—not only those which arise from bacterial activity, but those which may result from errors of metabolism. A few years ago Johnston, whose too early death we have to deplore, studying the relationship of autointoxication to various bullous diseases, including dermatitis herpetiformis, concluded that it was the principal etiologic factor in their production and that it was due to a failure of proteid metabolism. More recently Schwartz, in a most painstaking study of the metabolism of prurigo and dermatitis herpetiformis, comes to the conclusion that these two diseases are manifestations of anaphylaxis. These studies of Johnston and Schwartz, which deserve the most careful consideration, would seem to indicate that the toxemia which produces dermatitis herpetiformis may have its origin, or at least its preliminary stages, in the alimentary canal. Johnston called attention

to the fact that shock, which as already observed, has preceded the appearance of the affection in a number of instances, a fact which has been made much of by those who believe in its nervous origin, shows its effects nowhere more strikingly than in the gastro-intestinal system, where by interfering with the normal processes of metabolism, it leads to the production of toxins of various kinds.

LABORATORY STUDIES

In connection with the possible origin of the toxemia in the gastro-intestinal canal, brief reference may be made here to some studies of dermatitis herpetiformis now in progress in the research laboratory of the Department of Dermatology of the University of Pennsylvania. Dr. Weidman, the assistant director of the laboratory, studying four typical cases of the vesicular and bullous variety which have been under the author's observation for periods varying from two to ten years, has found a yeast, the *Blastocystis*, constantly present in the feces. Since this organism is not normally present in the feces, this finding is suggestive of some possible relationship to the disease, although no trustworthy conclusion can be drawn at present, owing to the incompleteness of the investigation and the small number of cases thus far studied.

CAREFUL DIFFERENTIATION NECESSARY

In the character, arrangement and distribution of its eruptive lesions and to a less degree, in its course, dermatitis herpetiformis frequently shows a more or less marked resemblance to certain members of the group of bullous diseases and especially to erythema multiforme and to pemphigus. This resemblance was certain to receive the attention of so careful and experienced an observer as Duhring, and in a paper dealing with this resemblance he wrote: "The two diseases that bear most likeness to dermatitis herpetiformis are erythema multiforme and pemphigus. Dermatitis herpetiformis possesses clinical features common to both, but it is more closely related to erythema multiforme than to pemphigus . . . it is, in most instances, more closely allied to erythema multiforme than to any other generally recognized disease;" he regarded these two affections as "allied in nature." The resemblance between the eruptions of these two diseases is at times very close. In every dermatological clinic cases appear from time to time concerning which one must be in doubt at the first examination whether he has to do with an erythema multiforme or a first attack of dermatitis herpetiformis.

RELATIONSHIP OF DERMATITIS HERPETIFORMIS TO PEMPHIGUS

The relationship of these two dermatoses has been the subject of much discussion. For a time it seemed as if the term pemphigus was

about to become obsolete and all the cases formerly designated by it were to be classified as examples of the bullous variety of dermatitis herpetiformis. Our French confrères were especially active in this respect, particularly Brocq, who has been indefatigable in the study of the malady. But pemphigus still properly holds a place, although a considerably restricted one, in dermatological nosology. There are certain cases of cutaneous disease characterized by a bullous eruption exhibiting none of the polymorphism so characteristic of dermatitis herpetiformis, to which the term pemphigus is still applicable.

FREQUENCY OF EOSINOPHILIA

Just here I wish to say a few words concerning the relative frequency of eosinophilia in these two maladies. My own observations lead me to believe that it is much less frequent in dermatitis herpetiformis than in pemphigus; in the former it is frequently absent altogether, while in the latter it is the rule, the percentage of eosinophils at times being very high.

PECULIAR GROUPING ARRANGEMENT OVEREMPHASIZED AS DIAGNOSTIC SIGN

Much emphasis has been placed by the great majority of writers on the tendency of the eruption of dermatitis herpetiformis to occur in groups, often with an annular arrangement as a highly characteristic feature. Duhring himself especially emphasized this feature declaring that, "without herpetiformity, it may be said the disease cannot exist." It seems to me, however, that many authors have greatly overemphasized this peculiarity; they have apparently overlooked the fact that it is by no means confined to this disease; but occurs in many others to just as great or even greater degree. The tendency is to regard every bullous disease showing an annular arrangement of the eruption as belonging to the bullous variety of dermatitis herpetiformis.

A DERMATOSIS REQUIRING DIFFERENTIATION

In this connection reference may be made to the disease distinguished by annular bullae described by early writers as a variety of pemphigus circinatus, but which is described by most recent authors as a bullous form of dermatitis herpetiformis. Now I believe that this affection is a variety of pemphigus and not dermatitis herpetiformis. I have had the opportunity to see a fair number of these cases, two of them quite recently, and I have been much impressed with the remarkable uniformity of the eruption which distinguishes them. It begins as tense hemispherical blebs filled with a transparent fluid which in the course of a day or two becomes cloudy, then frankly purulent. The blebs are seated at first on apparently normal skin, but when they have become purulent they are surrounded by a narrow

inflammatory halo. They extend peripherally quite rapidly, drying up in the center into a brown or yellowish crust so that in the course of a few days they become ring-shaped, varying in size from a large coin to the palm of the hand. The eruption is not confined to the skin but also attacks the mucous membranes of the lips, tongue and palate. It appears in successive outbreaks, each outbreak accompanied by more or less constitutional disturbance with elevation of temperature which at times may be considerable. Each successive outbreak is precisely like the one which preceded it both as to the character of the eruption and as to its course. The extraordinary uniformity of the eruption throughout the entire course of the disease, wholly unlike the multiformity so characteristic of dermatitis herpetiformis; the involvement of the mucous membranes; the considerable constitutional disturbance which accompanies each outbreak, are features which are much more characteristic of pemphigus than of any other malady.

CONCLUSIONS

Relying in part on ascertained facts, but also to a very considerable degree on analogy and hypothesis, we may conclude as follows:

1. That dermatitis herpetiformis is the result of a toxemia.
2. That the toxins responsible for its symptoms are probably of various kinds, but closely related in composition, and of varying origin.
3. That the resemblances which exist between it and certain other affections, such as erythema multiforme and pemphigus, probably result from a similarity of the causative agents concerned in these several diseases, and still more, from a similarity if not actual identity of the mechanism concerned in the production of the cutaneous phenomena.

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THE RÔLE OF THE VEGETATIVE NERVOUS SYSTEM IN DISEASES OF THE SKIN

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The archetype of the vegetative or autonomic nervous system is found in the ganglionated or metameric nervous systems of the lower vertebrates, in which in the absence of a forebrain and prior to the development of intelligence or consciousness the necessary functions of life are carried out through a few simple ganglions and nerve fibers. In man this primitive nervous system has been long disregarded because lost sight of in the study of the evolutionarily superimposed forebrain or cortex, with its highly organized association systems and central nervous system extensions. The activity of the vegetative nervous system still takes place below the level of consciousness and independent of intelligence, but it none the less sways the very foundations of life.

ANATOMIC DIVISIONS

The vegetative nervous system consists of two divisions; one arises from the midbrain, the bulb and the sacral portion of the cord, passes out through the oculomotor, the facial, the glossopharyngeal, the vagus and the pelvic nerves and is termed the craniosacral or extended vagus division or parasympathetic. The office of this nervous system is to slow or depress function, and it becomes in this way a conservator of energy. The other division of the vegetative system arises from the cord, from the first dorsal to the fourth lumbar segment and is called the thoracolumbar division and corresponds to the former so-called sympathetic system. The effect of this nervous system is to accelerate or heighten function, and it becomes thus an exploiter of energy. Theoretically, the mutually antagonistic actions of the two branches of the vegetative nervous system result in a perfect balance which produces physiologic poise, but practically this seldom occurs, for not only are persons born with one or the other of these systems in domination, but through life are exposed to the effects of stimuli which influence inordinately one or the other of the two divisions.

FUNCTION

The function of the vegetative nervous system is the regulation and coordination of metabolic activities. It does this in part through its own automatism, but in the main it accomplishes its purpose through

the employment of messengers. The messengers used for this purpose are the hormones of the ductless glands. The ductless glands possess the power of a certain degree of autonomic secretion, but the larger part of their activity is in direct response to the call of the vegetative nerves. Not only does a ductless gland respond to the stimulus of the nerve, but its secretion in turn reacts on the nerve making it still more sensitive in function.

The great accelerator hormones of the human body, of which the prototype is adrenin, are secreted on stimulation of the thoracolumbar or true sympathetic system. Adrenin on its secretion reacts on the sympathetic nerves so that this whole system throughout the body becomes much more highly sensitive, and the condition is called sympathicotony. Sympathicotony represents roughly a condition of accelerated metabolism. On the contrary, an increase in function of the opposite branch of the vegetative system, that is, the parasympathetic division, results in a condition known as vagotony and roughly represents a condition of retarded metabolism.

The type of great depressor hormones is represented by cholin, a product of the suprarenal cortex which, as regards its effect on the circulation, is the most powerful substance known in pharmacology, being a hundred times more active in causing a fall of blood pressure than is adrenalin in causing a rise. That this substance is produced on stimulation of the parasympathetic nerves and, in turn, raises the tone of these nerves we do not yet know from experiment. Sympathetic excitation accompanies the overactivity of the great energy producing glands, the gonads, the suprarenals and the pituitary; conditions of failure in function in these glands are associated with signs of decreased tone in the sympathetic system. Overactivity of the thyroid is paralleled by excitability in either the vagus or the sympathetic, depending on extrathyreogenic causes. Sympathicotony is seen in early exophthalmic goiter, vagotony is seen in nonexophthalmic toxic goiter. Hyperovarianism, hyperorchidism, hypersuprarenalism and hyperpituitarism show signs of increased excitability of the sympathetic system. In the pituitary insufficiency of acromegaly, in the testicular insufficiency of castration and eunuchism, in the ovarian insufficiency of ovariectomy or the menopause, and in the deficiency of Addison's disease, the vagus system is predominant in efficiency.

NEURO-ENDOCRINOLOGICAL MECHANISM

The interrelation of the ductless glands and the vegetative nervous system is so intimate that a disturbance which is primary in one at once affects the other, and for physiologic purposes they may be considered as an entity, namely, the neuro-endocrinological mechanism,

Dysfunction of this mechanism, or neuro-endocrinopathies, arise in response to three varieties of stimuli: (1) metabolic; (2) toxic, and (3) affective or psychic.

1. *Toxic Stimuli*.—These arise (a) As circulating toxins in the course of a general infection influencing the nervous tissues. An example of this is seen in the sympathetic irritation observed in general tuberculosis which is often mistaken for hyperthyroidism. (b) As bacterial irritants affecting the glands themselves, directly. An instance of this is seen in the overactivity of the thyroid in connection with a mouth infection, or the overaction of the ovary in early tubal infection.

2. *Metabolic Stimuli*.—These arise as biochemic reflexes from the body as a whole in process of growth, or as similar reflexes from certain organs in process of growth, as the sexual organs at puberty, or as reflexes from organs in process of growth for special function, as menstruation, pregnancy, spermatogenesis or lactation.

3. *Affective Stimuli*.—These arise as radiations into the vegetative nerves of impulses generated in the brain in association with the great primal feelings of anger, fear, subjection and lust. These emotions appear usually in consciousness under the guise of worry. Their potency is undiminished even when they are displaced into the unconscious through the mechanism of repression. They stimulate or inhibit the internal secretions.

RESULTS OF STIMULATION

Stimulation of the vegetative nervous system produces the following results:

1. Sympathetic irritability with evidences of increased function in the sympathetic nerves and related glands. The best example of this is exophthalmic goiter in its early stage. Other examples occur in the early stage of acromegaly, in pure hyperadrenalinism and in many hyperovarianisms. This function is increased by epinephrin and by atropin and diminished by acetylcholin.

2. Sympathetic exhaustion with decreased function in the sympathetic nerves and a relatively increased function in the vagus system. This is seen in the late stage of exophthalmic goiter, in the late stage of acromegaly, in adrenal insufficiency and the high pressure toxic goiters.

3. Parasympathetic irritability with evidences of increased function in the vagus nerves and related glands. This function is increased by acetylcholin and inhibited by atropin. The best examples are seen in the hyperthyroidisms of childhood and puberty, in nonexophthalmic,

toxic, low-pressure goiter, in thymus hypertrophy, and in many focal infections when the circulating toxin is a parasympathetic stimulant analogous to cholin. The gross characteristic of all parasympathetic states is a tendency to smooth muscle spasm and here we find the vast array of visceral and circulatory spastic conditions ranging from pylorospasm to angioneurotic edema.

4. Parasympathetic exhaustion with evidences of decreased function in the vagus system. This condition has not yet been worked out but it is probable that *status thymicus* is an instance of it.

SLOW PROGRESS MADE IN THIS STUDY

Progress in knowledge of the internal secretions has been retarded by the attempt of observers to synthesize symptoms into groups centered on the disturbance of a single gland. Advances can be made only when the horizon is extended and realization comes that we must look on metabolism as a great mosaic founded on the several ductless glands correlated in function through the medium of the vegetative nervous system; and that disturbance may arise in these nerves and affect the glands; or it may begin in glands and derange the nerves; but the end-result is a derangement in metabolism which may be reflected in the domain of any specialist, but will be found involving a far-flung array of other organs. It is the duty of every specialized observer to familiarize himself with the exact metabolism of his particular field so that he may call the attention of other workers to the appearance of metabolic irregularities. In no subject is this of more importance than that of dermatology in which the skin is an organ singularly responsive to metabolic perversions elsewhere in the body.

An acquaintance with the antagonistic functions of the two nerve systems is essential in endocrine study. Roughly speaking, sympathetic irritability suggests overactivity of some of the great glands which correlate their efforts with the adrenal medulla, while parasympathetic irritability suggests inactivity of these glands or an overactivity of tissues producing a cholinlike substance.

The presence of a goiter does not define the reaction, since in the presence of active suprarenals it gives rise to the exophthalmic sympathicotonic syndrome, while in the presence of inactive suprarenals it produces the nonexophthalmic vagotonic complex.

INFLUENCE ON THE SKIN

The influence of the vegetative nerves on the skin is seen in the variations in the following: the vasomotor tone, the exudations, the pigmentation, the quantitative changes in the secretion of sweat and fat, the temperature, the size of glands, the deposition of fat, the

nutrition of hair and nails, the distribution of hair, the texture, subcutaneous consistency, the tone of the hair muscles, and the sensation. The sympathetic skin is an excessively functioning skin, the vagotonic is a defectively functioning skin in the sense of perversion or diminution.

TIME OF ORIGINATION

Endocrinopathies of bacteriotoxic, or metabolic or affective causation may arise in childhood, in adolescence or during maturity.

1. *Preadolescent Endocrine Disturbance*.—(a) In childhood the principle glandular stimulus is metabolic, and although all the glands are invited to action, the brunt of the work falls to the thymus which is the chief incitant to growth in bulk. If the other glands fail of function, as in the gonadal insufficiency of Barker or in the pituitary insufficiency of Cushing, the thymus hypertrophies and excessive growth with fatness and genital atrophy ensues, associated with parasympathetic irritability. A mild type of thymus activity with parasympathetic irritation is seen in the condition separated by Czerny as the exudative diathesis. Here are seen overly fat children suffering from eczema or urticarial expression of obdurate type, in which patients appear also recurring attacks of vasomotor rhinitis and afebrile bronchitis and asthma with often pylorospasm. The vagus is so irritable that many agents effect symptom explosions, and these patients furnish much of the material used to illustrate anaphylactic reactions to foreign proteins. Recurring eczemas in fat children should prompt an inquiry as to the concurrence of asthma and spasmodic and vasomotor affections. Although some protein may be the offending factor, the fundamental basis is a hair-trigger nervous system and underlying this will be found an endocrine imbalance.

(b) In later childhood the chief endocrine disturbance and one of which the prevalence and importance is not yet recognized, arises from hypertrophy of the thyroid from bacterial irritation set free in a dental or tonsillar sepsis. Suppuration in or around deciduous teeth in childhood is the greatest menace to adult neural integrity. A child is usually parasympathetic in reaction and a goiter intoxication exaggerates the trouble. Acrocyanosis is constant, hands and feet are blue, cold and wet. The skin elsewhere is marbled and cyanotic and, on stroking, orange streak follows. The acrocyanosis favors the appearance of chilblains and even frank peripheral gangrene has come under my observation. Persisting urticaria and erythema multiforme with myalgia are frequent expressions. Further inquiry in these cases will elicit the evidence of mild choreiform movements which I have spoken of as a thyreogenic pseudochorea; of mental retardation, of persistent headache and of defective visual function. These children are usually

taken out of school for persistent headache or eye trouble about the twelfth year. Treatment is often sought for the excessive sweating. No cases offer greater opportunity to the dermatologist for constructive work.

2. *Adolescent Endocrine Disturbance.*—From puberty to maturity the pituitary gland, the suprarenal cortex and the gonadal tissues are particularly active. Although the other glands produce specific growth results, yet, practically, perversions at this time can be read in terms of the sex glands. For instance, pituitary insufficiency is at once shown by delay in development of the secondary sexual characteristics, while overaction of the cortex expresses itself in a precocity in the appearance of the hirci and crines. The growth of the sex glands is paralleled by a growth in size and in secretion of the sebaceous glands, and a soil is offered for forms of acne and seborrhea. Many of these cases of excessive sex gland activity need all their energy for growth purposes, and great improvement follows the partial withdrawal of the young patient from the myriad activities which center around puberty. Certain cases of eczema in the adolescent arise on a basis of sex gland insufficiency, and investigation will reveal the presence of a sexual neurosis which, if unchecked, extends its pernicious influence into later life as a neurasthenia. Thyroid activity at this time simply exaggerates preexisting conditions. Every adolescent with skin disease should have the condition and probable activity of the thyroid noted during the skin examination for later consideration.

3. *Adult Endocrine Disturbance.*—(a) *Thyreogenic conditions:* The thyroid hormone is a typical metabolic accelerator and yet as Kendall has shown acts only as a perfect accelerator in the presence of suprarenal activity. The determinant of thyroid effect is then the degree of suprarenal activity. Hyperthyroidism plus high adrenal activity produces exophthalmic goiter; a lesser degree of suprarenal activity leads to the nonexophthalmic toxic high-pressure goiter, while low or inactive adrenals induce the picture of the nonexophthalmic, toxic, low-pressure goiter with evidence of marked parasympathetic stimulation and many perverted skin functions.

The early exophthalmic goiter shows a high or exaggerated degree of skin metabolism, in increased warmth, in exquisite texture, in increased sensitiveness, in high color, and in increased arterial circulation. One phase is noteworthy and that is a species of pathologic blushing involving face and neck of arterial type which at times attains the subjective painfulness of an erythromelalgia. In these cases the thyroid activity may be reduced to controllable limits in one of two ways: (1) By removal of a focal infection the toxins from which are the deciding factor; or (2) by the uncovering of an emotional

repression which, acting as a foreign body in consciousness is radiating an irritation into the vegetative nerves, not different from a toxin. This applies to all forms of goiter. The late exophthalmics and the low pressure goiters express themselves in terms not unlike an adrenal insufficiency in that pigmentations are the rule and the skin is markedly insufficient in function.

(b) Gonadal conditions: All endocrine disturbances are pluriglandular, but in many we can point out the primary disturbing factor. The fibrocystic ovary which is a common type of pelvic disturbance is, in the beginning, a hypersecreting ovary and produces many reflections into the skin, of vasomotor irritability. Marked vasomotor imbalance in the skin of a young woman should suggest a survey of the pelvic history. The bogey of the menopause is largely a myth. The skin symptoms at that time are part of a hyperthyroidism, as a rule.

(c) Suprarenal conditions: Hyperadrenalism may be suspected in hyperemic conditions of the skin in which the blood pressure is raised, the coagulation time shortened, the blood sugar increased and a general overexcitability of the nervous system present. It is usually part of a complex involving overactive ovaries, thyroid or pituitary. The obverse of this picture with pigmentation accompanies other glandular insufficiencies, or may occur alone and, at times, imitates a pernicious anemia.

REPORT OF CASES

CASE 1.—*Pathologic blushing in which the suprarenals are a possible factor.*

A telephone operator aged 34, was annoyed by persistent painful flushing of the face and neck without cause and accompanied by giddiness and vomiting. She had received treatment for indigestion for some months without help. The whole picture was one of great circulatory activity. The heart rate was 100, the blood pressure was elevated to 134, the face flamed as with passion. There was no organic defect. Dr. Neuman, the pathologist, reported that the coagulation time was reduced to 10 seconds and that the blood sugar was doubled, reaching 0.19. This corresponded to the criteria laid down by Cannon for suprarenal activity. This patient was sent to a psychoanalyst, by whom a sexual complex was uncovered and improvement ensued.

CASE 2.—*Pigmentation of the skin with loss of vasomotor irritability in a case considered pernicious anemia in which necropsy disclosed cystic suprarenal glands.*

A housewife, aged 64, developed a dark brown pigmentation of the hands and forearms during exhaustion subsequent to house cleaning. Cardiac asthenia was marked, there was much gastro-intestinal discomfort and the whole integument was of a lemon color. The roentgenogram revealed gallstones, the blood picture was that of primary anemia with 2,384,000 red blood cells; hemoglobin 35 per cent.; the gastro-enterologist reported the presence of achylia gastrica. The gallbladder was drained, the patient was transfused and was given adrenalin hypodermically and Rogers' adrenal residue by mouth. She lived fifteen months during which time the dark pigmentation cleared, but the lemon tint persisted. The necropsy report by Dr. Van Sweringen states: right adrenal almost entirely cystic, cortex not visible, the medulla appears markedly necrotic and of a dark chocolate color. The left adrenal

shows at the lower pole three small cysts; cortex not visible, medulla somewhat necrotic. The blood pressure in this case was never below 115-70.

CASE 3.—*Acrocyanosis in a patient who had a goiter and symptoms of parasympathetic irritation.*

A school girl, aged 16, complained of sweating hands which were always blue and cold. Examination showed that the thyroid was markedly enlarged, very vascular and pulsating. The heart rate was increased to 96, the blood pressure raised to 130-70. This girl had chronic headache, had been out of school a year for eye trouble, and had had much spastic indigestion for which her appendix had been removed. The thyroid was undoubtedly the basic factor in this illness.

CASE 4.—*Acrocyanosis with large areas of superficial gangrene simulating Raynaud's disease in a patient with goiter.*

A Jewish girl, aged 18, who clerked in an unheated delicatessen shop, complained of ulcers of the ankles and feet which she has been told were lupus. The history was that for the past four winters, with the onset of cold weather, blue spots appeared on the feet and ankles which later became raw. She was receiving roentgen-ray treatment. Examination revealed several square inches of ulceration on both ankles and feet. The feet were deeply cyanosed, cold and wet. The hands were cold, wet and cyanotic, but not ulcerated. The girl was very nervous and tremulous, the pulse was increased to 120, a large soft pulsating goiter was present and there was undoubtedly oversecretion. These sores healed readily when the feet were elevated on a warm pillow and kept off the cold floor of the store.

CONCLUSION

I believe that oftentimes within reach of the dermatologist lies the key which may unlock the secret of an illness which is much more extensive than the skin lesion, and that it is the duty of the dermatologist always to endeavor to find the underlying causes of skin diseases.

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ABSTRACT OF DISCUSSION

DR. ERNEST L. McEWEN, Chicago: Dr. Reede has given us some fundamentals which we will appreciate more and more as time goes on. Are not we dermatologists making a mistake when we attack problems in etiology by dividing and subdividing diseases, placing them in more or less fixed categories, and trying to find some distinct cause for each? Would it not prove a more fruitful plan to regard a large number of conditions which we see as *reactions* on the part of the skin to factors which are harmful in some way to the organism? Then our problem would be to discover why and how the skin reacts, and this would lead us into fields which are difficult to search. I believe that the domain of which Dr. Reede has given us a glimpse today will prove of vast importance to dermatology. There are dozens of skin conditions of obscure causation in which the ductless glands are in some way concerned.

DR. WILLIAM ALLEN PUSEY, Chicago: I am perfectly ready to believe that the lines indicated by Dr. Reede lead to very fruitful fields. I was not able to follow him in some of his statements that seemed to me to be quite positive. I am quite ready to believe that endocrine glands will ultimately explain many things, but I cannot help feeling that they are used rather freely now as a working hypothesis to explain uncertain things. The cases he cited did not carry conviction to my mind. For example: Raynaud's disease was

frequently referred to in connection with thyroid insufficiency or excess. That is a highly interesting observation, but it does not cover, I am sure, a very large number of these cases in which an enlarged thyroid cannot be found and probably does not exist and in which other definite causal factors can be established.

DR. RICHARD L. SUTTON, Kansas City, Mo.: There is no doubt that thyroid involvement, with consequent upsetting of the general health, may follow tonsillar and apical infections. The internists are much more awakened to the importance of this etiologic element than we dermatologists. Not long ago I was consulted by a young woman who was suffering from bacteriophobia. No amount of argument would convince her that she was not in imminent peril of fatal infection. She washed and scrubbed herself forty times a day and, as a result, developed a severe dermatitis. I referred her to a psychiatrist, who finally succeeded in uncovering and explaining her complex to her and with the discontinuance of the scrubbing the dermatitis promptly cleared up.

DR. HENRY J. GERSTENBERGER, Cleveland: As a pediatricist I am interested in what Dr. Reede had to say regarding the eczematous condition in infants to which he referred when he mentioned the symptom complex known as Czerny's exudative diathesis. The idea that exudative diathesis might have a vagotonic basis is not new. One of Czerny's assistants, Krasnogorski, in 1913, presented this view on the basis of the work of Hess and Eppinger, and reported excellent therapeutic results with the administration of a 1:1,000 solution of atropin, in doses varying anywhere from a total of 5 to 50 drops per day. We have tried this therapy recently, at the Babies' Dispensary, with varying results. In some cases the therapeutic effect seemed to be good and rapid, in others no definite results could be obtained, and all in all there seemed to be, in most cases, the customary "up and down" which we see in these cases under other and different forms of treatment. This varying result was more or less as I had expected it to be from theoretical considerations. The atropin is to be given until a physiologic effect can be obtained, which means, among other things, a reddening of the skin, due to a dilatation of the peripheral vessels. And it has never seemed quite clear to me how such a dilatation could improve a condition which is characterized by an excessive exudation, and yet such are the experiences of some authors. I should like to ask Dr. Reede if he could explain how atropin therapy could be of value under these circumstances in exudative diathesis cases showing skin lesions.

DR. J. H. STOKES, Rochester, Minn.: During the period of my association with Dr. Wile it was a routine treatment to administer atropin in exactly the way Dr. Reede has described. The effects did not become real satisfactory until we carried the dosage to the point of toxicity. There were pupillary signs and the symptoms of erythema of the skin. The erythema did not materialize, the skin blanched, and the infants became very normal-looking children within a few hours. As to the psychoanalytic work on the dermatoses, it is very little appreciated by dermatologists. Some patients will appear in the same state of health that other patients are, with every excuse for pruritus and other ailments, and will have none, while other patients, with no excuse at all, will have the disorders. I have been particularly interested in cases of pruritus vulvae and cases of that type, and I can now single out the cases of this type that have a psychic element and within a few hours can have a great change in the picture. This is accomplished largely by ridiculing the work of Freud. I have to my credit a number of cases of pruritus vulvae et ani and vaginismus that I have cured by treating the nervous mechanism.

DR. LORETTA JOY CUMMINGS, Boston: In the last two years I have treated eight cases of acne rosacea at the Massachusetts General Hospital by roentgenizing the thyroid. The patients were given two or three erythema doses at intervals of about ten days and every case showed marked improvement.

DR. AUGUSTUS RAVOGLI, Cincinnati: There is no doubt that the ductless glands influencing the circulation have a great deal of effect in the production of different skin affections. We know that the endocrine glands work in unison, and that when one is out of its normal condition every one of them goes out of the normal condition. We have, for instance, the type of disorders of the thyroid known as hyperthyroidism, as manifested in Basedow's disease, and as hypothyroidism, found in myxedema. This secretion, together with the ovarian, controls the adrenals and some cases of chloasma are entirely due to the condition of the adrenal glands. Some cases of prurigo which we cannot explain may be explained when we find that there is hyperthyroidism in the patient. Scleroderma has a great deal to do with the internal secretory glands. The secretions of the hypophysis have such an influence in exciting the arterial circulation, and are of immense importance for the physiologic functions. Von Recklinghausen's disease, neurofibromatosis, has been found associated with the disturbances of the glands. It is of the greatest importance to follow this subject.

DR. B. N. EPLER, Kalamazoo, Mich.: I recently had a case of lipodystrophia progressiva which I reported before the last Michigan State Society meeting. Only twenty-four cases are reported in the literature—three besides mine in this country. In working up this subject, so far as the etiology of the disease is concerned, I find the consensus of opinion suggests that it is due to some disturbance of the endocrine glands or that these glands are a factor in the disease. This atrophy begins in children, usually about the age of 5. The cases may belong in the skin section, in that the characteristic symptom is complete atrophy of the subcutaneous fat. The child's face usually looks like that of an emaciated old woman and the picture is typical of the disease. The remarks just made as to the relationship of cutaneous lesions and endocrine gland disturbance seem to be supported in this class of cases.

DR. HENRY H. HAZEN, Washington, D. C.: Dr. Reede has given us only basic facts in endocrinopathy. In the past we have heard a large number of very diverse statements concerning diseases due to some sort of mysterious nerve influences. Dr. Reede has established just what conditions may be due to the vegetative nervous system, and I think we must conclude from a study of them that the vast number of dermatoses do not bear any connection whatever to this factor.

DR. EDWARD H. REEDE, Washington, D. C.: In the cases I spoke of I simply mentioned the things occurring in association with coincidental involvement of the skin and suggested no causal relationship. The question of dilatation of the blood vessels, which Dr. Gerstenberger raised, is one which has been animating investigators to a great extent for the reason that there are vasodilators in both of these nervous systems and also a posterior root vasodilator. The possibility is that we have a separate vasodilator mechanism hitherto unknown. This is largely concluded by what we learn from Reid Hunt's work published in the *Journal of Physiology*, February, 1918. In that experiment, whereas, as far as he can judge, acetylcholin causes parasympathetic vasodilatation and atropin antagonizes it, yet dilatation will still follow nerve stimulation. The question is not one of sympathetic or parasympathetic, but vasodilatation of a separate mechanism. Atropin paralyzes the parasympathetic function and we attempt to get good from it with the hope that the sympathetic structures are able to carry on the work. An interesting factor in thyroid cases is that, whereas the sympathetic system is very active in the beginning, after they later become vagotonic an attempt to paralyze the vagus with atropin brings no improvement.

SUPERINFECTION IN SYPHILIS *

JOSEPH V. KLAUDER, M.D.

PHILADELPHIA

It is a well known fact that a person who has suffered from syphilis is little liable to contract it a second time, but it must not be inferred from this that a true immunity is necessarily present. Ricord's dogma that "once infected with syphilis never again infected," no longer holds in the light of recent observations and experiments. The so-called "laws" of Colles and Profeta have likewise become obsolete. These laws were based on the observation that mothers who have borne syphilitic infants were not infected by their children while suckling them, although such children might infect wet nurses. Profeta's law was the converse of this, namely, that children born of mothers who suffered from active syphilis during the period of conception did not acquire the disease from their mothers.

These "laws" as proofs of true acquired or inherited immunity have been robbed of their value in the light of serologic investigations of Bauer, Knopfmacher and others, which have shown that, inasmuch as mothers of syphilitic children usually give positive Wassermann reactions, such mothers are most likely suffering from syphilis in a latent form and are not immune in the ordinary sense. For syphilis is peculiar among infective diseases in the long number of years during which it may remain latent, and in the majority of cases the patient is apparently immune only because he is still syphilitic. This, as Neisser has justly urged, is not true immunity, but, as will be explained farther on, dependent on a relative insusceptibility of the skin to the access of a new infection.

SUPERINFECTION POSSIBLE

It is fairly generally agreed by those who have studied the subject, that individuals infected with syphilis are susceptible to a second inoculation or superinfection with syphilis not only during the period elapsing between the infection with syphilis and the appearance of the chancre, but also at periods shortly subsequent to the appearance of the primary sore.

It may be mentioned in passing that contrary to former teachings, it can no longer be maintained that a chancre is not auto-inoculable. In the writer's analysis of 200 cases of chancre, 24 per cent. were multiple. In some of these cases, according to the patient, the second

* Read before a meeting of the New York Academy of Medicine, Feb. 7, 1918.

lesion appeared subsequent to the first. Mention may be made of a person with a chancre on the finger and one on the penis; from each of the lesions spirochetes were demonstrated. The one on the finger appeared three days subsequent to the one on the penis. McDonough gives 30 per cent. as representing the number of chancres which in his experience were multiple.

BRIEF REVIEW OF THE LITERATURE

Noble reports cases in the various stages of primary syphilis successfully superinfected with secretions containing *spirochaetae pallidae* from the patient's primary lesion on a small area of scarification on the same person. In from three to eight days following the inoculation he obtained positive results, in some of which lesions the spirochetes were demonstrated. The sterile water controls were negative.

Queyrat reports a case successfully superinfected daily up to the eleventh, and Taylor one superinfected on the fourteenth day after the appearance of the primary sore; Mauriac and Neisser the twenty-second day, and Linderman the twenty-fourth day.

After the disease is well established as a systemic infection, that is, in the active "secondary period," many investigators, notably Mauriac and Neisser, have reported unsuccessful attempts to superinfect individuals.

However, Ehrmann succeeded in superinfecting syphilitics in the secondary period, in one case as late as six months after the appearance of the general eruption. In some of the lesions at points of inoculation he demonstrated spirochetes. These lesions were mostly papular in type, simulating the particular variety of lesion spontaneously manifest in the individual at the time. Positive results were obtained in from five to ten days after the inoculation and did not appear to be influenced by treatment administered prior to their appearance. The control inoculations with sterile water in some instances reacted to a slight degree but at none of these sites were spirochetes demonstrated. On further study of these areas he reports finding "significant histological changes." Ehrmann thought that the positive controls obtained were due to a hypersensitized condition of the tissues—von Pirquet's "Allergie."

According to the superinfecting experiments of Finger and Landsteiner the insensitiveness of the skin to superinfection in syphilitic subjects is not so complete as stated by other observers. They find that superinfection is successful in proportion to its proximity, in point of time, to primary infection. If general infection is not yet complete, a typical chancre can be produced, but from the time when constitutional symptoms appear it becomes progressively more difficult

to succeed. During the secondary period the result has some resemblance to a secondary papule, while in the tertiary stage ulcerated or nodular syphilids are produced, resembling tertiary lesions. And to produce any effect at all in these later stages, large amounts of the virus must be introduced. They further state that superinfection is possible "under certain circumstances in all stages of the disease."

Queyrat and Pinard report a successful superinfection of a tertiary syphilitic with chancre material, obtaining not a primary lesion but an ulcerated lesion having the clinical characteristics typical of the late skin manifestations of the disease.

EXPERIMENTS IN SUPERINFECTING SYPHILIS

Superinfecting experiments on syphilitic individuals are harmless and may be performed with impunity. Superinfections, if successful, do not in any way influence the subsequent course of the disease, as shown by numerous attempts of investigators at active immunization of man and animals.

The writer in a subsequent paper will report the results of his superinfecting experiments on syphilitic individuals in the various stages of the disease. In these experiments the spirochetes from the person's "open" lesion and spirochetes from other sources were used. A study of the histologic changes produced by such inoculation, and of results of the agglutination of the same individual's serum with the spirochetes used to superinfect, was also undertaken.

Many investigators have demonstrated that syphilis can be superinfected in animals that are susceptible to experimental infection with this disease. Neisser succeeded in superinfecting monkeys in from 27 days to 645 days after the first infection. After waiting a sufficient period of time in order to obtain a negative result of the inoculation, it was possible with extracts from the organs from these animals to inoculate other monkeys. After treating the animals with spirocheto-cidal agents superinfection was again possible.

As Neisser has pointed out, this is not true immunity; the animals were only apparently immune because they still harbored virulent spirochetes, a condition of insusceptibility to "superinfection" existing, which Neisser designates as "Anergie."

As a basis of similar observation Kraus and Volk are of the belief that a specific skin immunity exists in syphilis.

Zinsser, Hopkins and McBurney have shown that it was possible to inoculate one testis of a rabbit after apparent recovery from a previous lesion. The opposite one could be successfully inoculated before, during, and after the existence of a lesion on the other side. These investigators conclude that the resistance which develops during

the disease is an expression of a localized tissue reaction as a result of an active invasion with the virus rather than as a result of an appreciable formation of circulating antibodies analogous to those observed in bacterial diseases.

According to Finger and Landsteiner, a syphilitic individual re-exposed to the disease may develop a local lesion which is not a true primary sore, but a manifestation corresponding in character with the stage of the disease at which the patient has arrived.

The genital lesions outlined in the following case histories, appearing on persons recently infected with syphilis, are probably instances of superinfection in syphilis.

REPORT OF CASES

CASE 1.—F. C., aged 23, was an outpatient at the clinic at the University Hospital. He first presented himself with a typical macular-papular rash and a healed chancre on the foreskin. There had been no treatment prior to his visit. The Wassermann reaction was ++++ plus. Two injections of nearsphenamin (neosalvarsan) were administered at weekly intervals and mercury was given by mouth for about one month. Ten months later the patient returned. He stated that he had had no treatment since his last visit. There was no subjective recurrence of the disease. He presented a small papular lesion about the size of a split pea with an ulcerative floor. He had had no local or internal treatment. The duration of the lesion was about two weeks. It appeared two weeks after intercourse. After a prolonged search a few spirochetes were found in the secretions from the sore. The Wassermann reaction was ++++. Clinical examination was negative except for pigmentary remains of the former eruption. The genital lesion disappeared under antispecific treatment.

CASE 2.—W. S., aged 26. He gave a definite history of a chancre in the sulcus of the penis, a secondary eruption and a ++++ Wassermann reaction. At this time he received six injections of arsphenamin (salvarsan) and a few intramuscular injections of mercury. All treatment was stopped. Six months later he presented himself with a small ulcerative area on the foreskin, the secretions from which contained spirochetes (a few seen in each specimen examined). This lesion appeared about twelve days after intercourse. Duration of lesion, ten days. The Wassermann reaction was ++++. The lesion disappeared under antispecific treatment.

CASE 3.—J. D. gave a definite history of chancre on the lip eighteen months previously. This was diagnosed and treated at another clinic. According to the patient, the dark field was positive and the Wassermann reaction was ++++. He received at this time one injection of arsphenamin (salvarsan) and twenty injections of mercury. All treatment was stopped. He presented himself with a small papular lesion on the shaft of the penis. Positive dark field. Duration of lesion, three weeks. The Wassermann reaction was ++++. The noteworthy clinical findings were: scar on the lip at site of former chancre; eye grounds, cardiovascular and neurologic examinations negative.

CASE 4.—C. W., aged 22, first presented himself in 1914 with a typical chancre at Dr. E. H. Siter's clinic at the University Hospital. Dark field positive. The Wassermann reaction was ++++. He received mercury administered by mouth. No arsphenamin (salvarsan). The patient attended very irregularly. In 1915, after a long period of absence, returned for a blood test which

was + + +. He subsequently attended very irregularly for mercurial treatment which was administered by mouth. In 1917, he again presented himself with a small ulcer at the preputial edge of an adherent foreskin. He had not been receiving treatment elsewhere. Dark field examination of the genital lesion was positive. Incubation and duration of the lesion was uncertain. The lesion disappeared under antispecific treatment.

CONCLUSIONS

The subject of superinfection is an interesting one from a clinical point of view and should be considered in the diagnosis of a genital lesion containing the spirochetes when appearing in persons giving a history of having had the disease. If in such lesions the spirochetes are found in profusion and the Wassermann reaction is at first negative, later becoming positive, it is evidence in favor of the lesion being a primary sore, a reinfection; whereas, if the spirochetes are present in scanty numbers and the Wassermann reaction is positive at the time of its appearance it is evidence of a superinfection.

Genital lesions which I have observed and regarded as the result of superinfection were papular-ulcerative and ulcerating in type, with little or no induration. They were clinically not chancres.

It is probable that many so-called second attacks of syphilis, or reinfection are instances of superinfection. There is nevertheless evidence that true second attacks of syphilis may at times occur. By a second attack should be meant the occurrence, twice in a patient's life, of a primary sore followed by secondary symptoms, and if this definition be accepted the phenomenon would be rather rare. As Neisser points out, it means not only that the patient has so returned to the normal as to react to the syphilitic virus like that of a non-syphilitic, but that he has lost any immunity which may have been conferred by his first attack.

In the differential diagnosis of a genital lesion of the nature herein reported, besides reinfection and superinfection, the following possibilities should be considered: Ulcerative processes over foci of syphilitic lymphangitis on the penis may in rare cases simulate a recrudescence of the primary lesion; a mucous patch or an abrasion; in these, however, the spirochetes are present in large numbers; a localization of spirochetes at the point of lessened resistance from the result of trauma.

The genital lesions herein reported were not regarded in a class of those mentioned above.

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A CONTRIBUTION TO THE PATHOLOGY OF MYCOSIS FUNGOIDES

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PART I. CLINICAL

Mr. G. M., aged 37, was referred to one of the writers (Mackay) by Dr. J. Stefansson of Winnipeg, Dec. 18, 1916. The patient's home was in Kamsack, Sask.; his occupation was that of a farmer.

When he first came under observation he had a generalized eruption which was markedly hyperemic, especially on the face, and presented a moderate grade of epidermal exfoliation. There were no tumor formations. The patient stated that the rash made its appearance a year prior to the date mentioned, and that in the intervening period it displayed at times periods of betterment but never quite cleared up. The cosmetic appearance was the chief complaint together with the fact that the skin "felt like a sun burn." There was moderate itching and irritation, worse on the face and aggravated in intensity since the onset of the cold weather. Some infiltration of the skin, especially of the face, was manifest with deepening and accentuation of the normal lines and markings of the cutaneous investment.

There was also considerable glandular enlargement especially in the axillae and in the inguinal regions. The diagnosis of pityriasis rubra was made at this time.

CLINICAL COURSE

In a few days the patient returned to his farm. Six months later he again consulted us for numerous tumors of various sizes which had developed since we last saw him. These tumors were scattered all over the body, many were pea-sized and were embedded in the subcutaneous tissues, others were cherry-sized, and still others stood out from the surface of the skin forming knoblike projections of considerable size.

Many of the lesions had undergone spontaneous resolution leaving no sign or trace of the occupied areas. In others, some pigmented spots remained to mark the site of the tumor formations.

The growths were of the sessile variety, rose abruptly from integument that apparently differed in no wise from the neoplasms themselves. There was no hyperemic inflammatory zone about them, they were remarkably regular in contour both at their circumference and over the dome, with no indentures, markings or striations on their

surfaces. Pseudo-fluctuation was manifest in a few but no ulceration had taken place. Dr. Gordon Bell of the Provincial Laboratory isolated a staphylococcus by stab culture.

The preexisting rash was still in evidence, although it had receded very appreciably, the tumors now dominating the picture clinically. The rash was now regarded as a premycotic eruption ushering in the tumor stage of mycosis fungoides.

The patient was enjoined to guard against injury of the tumors and cautioned against any measure calculated to impair the resisting power of the overlying integument lest ulcerative changes might be superimposed. For like reason we refrained from taking a section for microscopic examination. Moreover, it is quite within the range of possibility, that this apparently trifling procedure may not be as innocuous as would appear, since relatively quiescent and benign neoplasms may be stimulated thereby to added growth and increased malignancy; the unknown morbid agency may be pressed into the open mouths of blood vessels or lymphatics, since the protecting walls which nature has thrown around these pathologic conditions in the effort to hem in, circumscribe and delimit the morbid process, are cut across and the conditions for widespread and disastrous dissemination are invited.

DIAGNOSIS

The diagnosis was made on the clinical findings and on the progress of the affection. The Wassermann reaction was negative. What were regarded as diagnostic points were the premycotic rash, multiple tumors coming in crops, tumors many of which had undergone complete involution; and despite these manifold changes, there was practically no loss of weight, diminution of strength or other evidences of constitutional impairment.

TREATMENT

Coincident with the development of the tumor stage roentgen-ray treatment was instituted and seemed to exercise a favorable influence on the skin manifestations, hastening the disappearance of the tumors and apparently inhibiting the formation of new growths. It was remarked also that the erythrodermia, the induration of the integument and scaling diminished, and that the discomfort from burning and itching was less pronounced than before the exhibition of this remedy.

SUBSEQUENT HISTORY

Eleven months after the patient first came under our care, he again applied for relief, complaining of pain and discomfort from the presence of masses in the axillae.

These glandular masses were quite sensitive to the touch. The inguinal group were in like manner enlarged. All the skin tumors had undergone resolution with the exception of one in the forearm to which he himself had applied a solution of carbolic acid. This tumor had broken down.

Dec. 28, 1917: His appetite was good, general health maintained; he was able to do ordinary farm work, the urine and heart were normal, and a blood culture showed no growth.

Jan. 16, 1918: He entered St. Boniface Hospital under the care of Dr. Benoit. His condition at this time was very grave. He rapidly grew worse and died on Jan. 20.

The postmortem conditions and the pathologic findings are described by Professor Boyd.

COMMENT

There seems to be considerable divergence of views among pathologists as to the histologic characteristics of these tumor formations, some classifying them with the granulomas and others with the sarcomas. From the clinical viewpoint, once ulceration supervenes the course and progress of the affection is for all practical purposes identical with the malignant type. It may be that the anatomic structure undergoes transformation of like character and synchronous with the change in the clinical symptoms consequent on the age of the lesion and the development of the fungoid stage.

The history of this case tends to demonstrate that the skin condition is not an accurate criterion of the progress of the affection, that the plight of these patients is not bettered but rather made worse by the transference of the theater of action to nature's second line of defenses, the lymph glands, and that extensive pathologic changes of like origin to those found in the integument may be present in the viscera without giving rise to clinical manifestations in the victims of the disease.

PART II. PATHOLOGIC

The necropsy was performed fifteen hours after death. The body was that of a well-developed, muscular man, showing no evidence of emaciation. The skin presented peculiarities in several regions. Attention was at once attracted by the curiously dark appearance of the face, the right side of which was of a glazed leaden hue, not unlike that of a well polished stove, the left being of a coppery brownish tinge. This coloration did not extend on the neck to any distance. A fine scaling was evident on the face, and a coarser epidermal exfoliation on the scalp. Scattered irregularly over the body were a few hyperemic patches of a reddish-brown color, being most pronounced on the inner aspect of the knees.

A striking feature was the general glandular enlargement. This was most marked in the left axilla, where the mass was almost as large as the closed fist. Smaller masses were present in the right axilla, in the neck, in the submaxillary region, and in both inguinal regions. Apart from these glandular masses no tumors nor traces of former tumors could be detected in the skin except on the left forearm. Here, on the radial aspect just below the elbow, there was a single, sessile, ulcerated tumor, 2 inches in diameter, involving the skin and subcutaneous structures, but not attached to the deep fascia. It had a scooped-out, cup-shaped appearance, the rim being hard, thickened, and

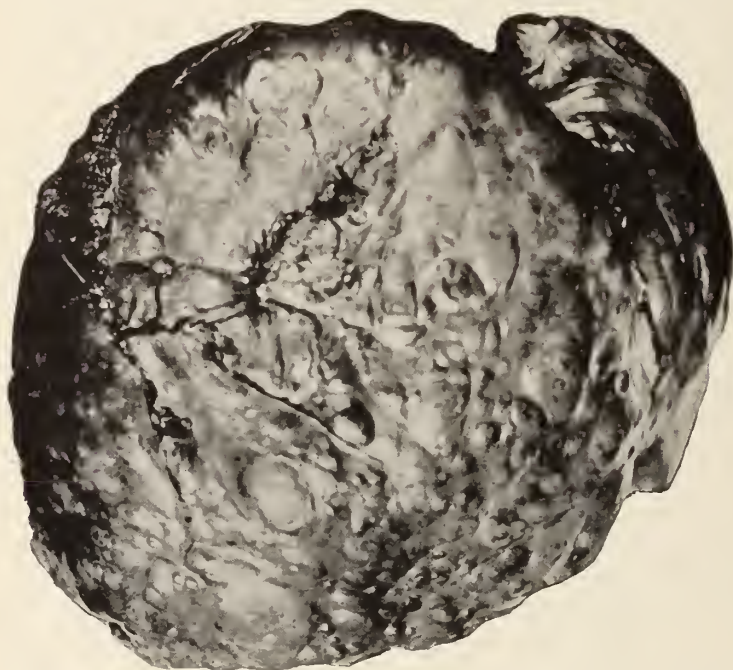


Fig. 1.—Greatly enlarged liver, showing large number of tumor nodules.

considerably elevated. The base was somewhat granular, and was covered by a thin, blood-stained secretion.

The abdomen was greatly distended, and in its upper part a large, hard, nodular mass could be made out.

On opening the abdomen a very large quantity of blood-stained fluid poured out and a liver of the most enormous dimensions and extraordinary appearance presented itself. Its lower margin extended fully 3 inches below the level of the umbilicus, and its upper surface had pushed up the investing dome of the diaphragm far beyond its normal limits. Indeed there appeared to be no room for anything else

in the abdomen besides this gigantic liver. Its entire surface was studded with innumerable knoblike protuberances varying in size from a split pea to a silver dollar. These tuberosities presented the most remarkable variety of colors and hues; some were bright red, some pink, others plum colored, but most were mottled or marbled with all of these tints. These tumors were very soft and friable, and the entire liver was of a similar consistence. There were no adhesions to sur-

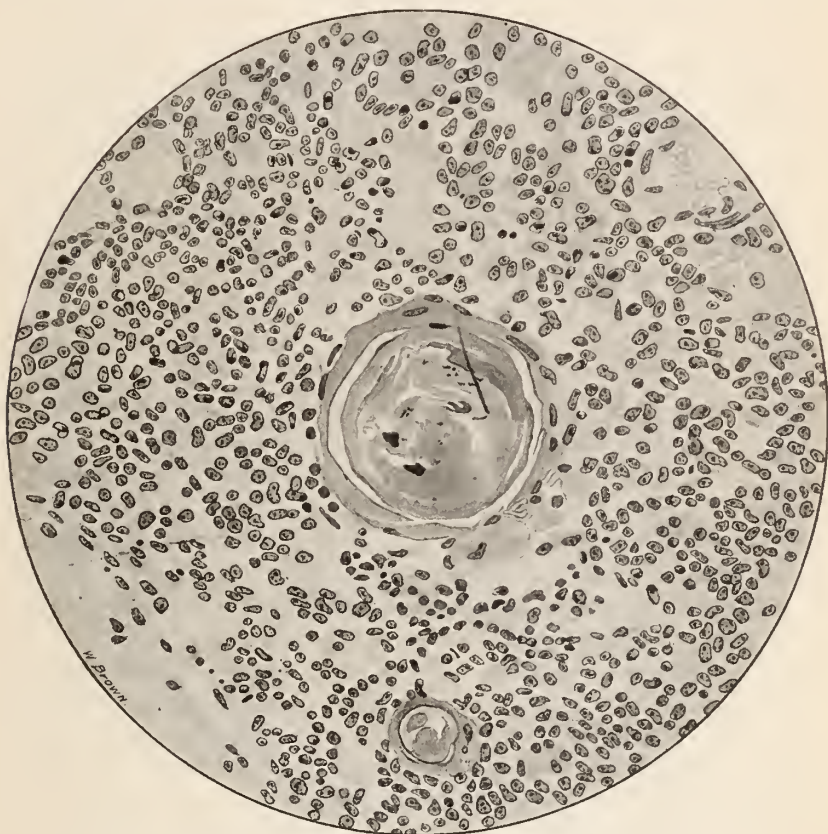


Fig. 2.—Capillary gland, showing tumor cells and hyaline bodies.

rounding organs. The liver on being removed from the body was found to weigh 288 ounces.

The liver was hardened by injections of Kaiserling's solution, and was sectioned later. It was found that the entire organ was studded with tumors identical with those which had already been observed on the surface. Indeed it was impossible to find a normal piece of the organ of 1 inch in diameter. It appeared incredible that life could be carried on at all with such enormous hepatic involvement.

The pleural cavity contained no fluid. At the apex of the right lung there was a nodule the size of a walnut, similar to those seen in

the liver. The mediastinal glands were somewhat enlarged, and there was considerable distention of the thoracic duct, which contained a quantity of milky fluid.

Small nodules were present in the cortex and medulla of both kidneys, the largest being 1 cm. in diameter.

The spleen was firm and slightly enlarged, but contained no tumors.

The heart, brain, stomach, intestines, pancreas, and adrenals presented no abnormality.

MICROSCOPIC APPEARANCES

All the organs in which tumors occurred presented a closely similar microscopic appearance. The liver may be taken as being representative. The organ was so thickly studded with tumors that it was with difficulty that uninvolved liver tissue could be found. At such spots, however, the liver cells showed remarkably little change. There was no evidence of atrophy, the cytoplasm and nuclei stained in a perfectly normal manner, and there was little or no infiltration of tumor cells between the columns of liver cells. In short, the line of demarcation between liver tissue and tumor was sharp and abrupt. The tumors were purely cellular in structure, consisting of large round cells, very uniform in size, with an oval or spherical nucleus which did not stain unduly deeply, the whole somewhat resembling a myelocyte. Many of the cells showed mitotic division atypical in character, there being but few examples of the usual monaster and diaster figures. There was no caseation, no congestion of vessels, and no small-celled infiltration. Hardly a trace of intercellular substance could be seen. The appearances were those of a rapidly growing large-celled sarcoma, and certainly in no way suggested a granulomatous condition.

The microscopic picture in the case of the kidney and the lung was identical with that just described. A sharp line of demarcation existed between the tumor formation and the tissue of the organ, the latter being remarkably normal in appearance. The tumor consisted of the same large cells, with complete absence of stroma.

In the affected glands the glandular tissue was entirely replaced by what may for the present be called tumor cells. These cells varied more in size than those seen in the other organs. Many of the cells contained two or more nuclei, and pyknosis and other degenerative changes were common.

Pieces of skin from the pigmented areas were unfortunately not removed for examination—a most regrettable oversight. However, the solitary tumor of the skin already described as being present on the left forearm, together with the skin in the immediate neighborhood, was removed and subjected to careful examination. Much of the surface of the tumor was ulcerated, and displayed the usual appearances of an ulcer. On the immediate surface there was a layer of fibrin and

coagulated plasma, while a little deeper were numerous thin walled blood vessels from which abundant hemorrhage had occurred. Here and there were elongated cells which might be taken as fibroblasts, and large numbers of polymorphonuclear leukocytes were present. Deeper still was a great mass of tumor cells extending far down into the cutis vera, and also outward under the epidermis on either side. At the edge of the ulcer the corium was unduly fibrous, the fibers showing some degree of hyaline degeneration. Here and there were vessels around which was a small round-cell infiltration. Right up in the papillae were collections of cells, mainly lymphocytes and plasma cells. The structure of the tumor itself was undoubtedly the same as that of the tumors of the glands and the internal organs. A remarkable number of cells showed a marked degree of karyorrhexis. In these cells the nucleus was broken up into a number of small globoid bodies of varying size which took on a deep nuclear stain. This appearance was perhaps due to the previous treatment with roentgen rays, such changes being frequently found after application of the rays. On the other hand, Unna and others have described cases of mycosis fungoides in which this fragmentation of the nucleus was a very marked feature.

The skin adjacent to the tumor did not show pathologic changes of any kind.

There still remains to be described the most remarkable of the microscopic findings. When the axillary glands were examined it was at first thought that a piece of the thymus had been removed, for in parts of the section there were groups of structures which were apparently identical with the Hassall corpuscles of the thymus. These consisted of flattened, elongated cells presenting a very marked whorled or concentric arrangement. The outer part of the bodies was formed of endothelial-like cells, but the center was hyaline and structureless, and in many cases the appearance was similar to that of a psammoma body. The inguinal glands were examined, and many examples of the bodies were found. Finally, the nodule in the lung presented exactly similar appearances. They were not found in the kidney or skin tumors. Even in the organs, however, where they were well marked many sections failed to reveal any, so that it is possible that they may have been present in some parts of all the lesions.

It is difficult or impossible to determine the exact nature of these bodies. They are quite unlike anything seen in ordinary sarcomas. In places where they were present a thickening of the vessels was noticed, with a tendency to proliferation of the endothelial cells, and it is possible that the bodies were derived from blood or lymph vessels. Even were that the case, however, we are still quite in the dark as to the nature of the impulse which gave rise to such a proliferation. Neither in a sarcoma nor in a granuloma have bodies been described which could be mistaken for the Hassall corpuscles of the thymus.

SUMMARY OF NECROPSY FINDINGS

To sum up, tumors in the skin, axillary glands, inguinal glands, liver, kidney and lung all present the same histologic picture with minor differences of little importance. This picture is one of a highly cellular structure, the cells of which are undergoing mitotic division, and the whole resembling the appearance of a large round-cell sarcoma. In places hyaline bodies of apparently endothelial origin are to be seen.

COMMENT

Much has been written about the pathology of mycosis fungoides. In a recent paper, Fraser* gives a list of nine suggestions by various authorities as to the nature of the condition. Such a list is conclusive proof of our ignorance on the subject. It is not even universally admitted that such a distinct entity exists. The two chief views are that it is a skin sarcoma or a granulomatous condition due to some infection of unknown nature. Very few cases of visceral involvement have been described, and in several of these it has been suggested that the visceral involvement was a sarcomatous condition which happened to coincide with the skin disease.

The present case appears to disprove conclusively this last hypothesis. It can be stated with perfect confidence that the tumors of the skin and of the internal organs were identical in nature. Whether or not these should be described as sarcomatous it is difficult to say. If they are true sarcomas, then there is no such pathologic entity as mycosis fungoides, for the present case conformed to the clinical picture of that disease with remarkable faithfulness of detail.

It commenced with a rash typically premycotic in type. After a period of many months, skin tumors characteristic of the disease made their appearance, and later they characteristically disappeared, all save one which had been interfered with and injured, and which became ulcerated and developed the typical mycotic appearance. The stage of general glandular involvement followed in due course, succeeded finally by the death of the patient. It is a textbook picture of a clinical case of mycosis fungoides.

If it is to be accepted as a case of sarcoma of the skin, followed by glandular and visceral involvement, then the term mycosis fungoides becomes no longer justifiable. On the other hand, the hyaline bodies observed in many of the lesions certainly seem to bear no relationship to sarcoma as we know it. The problem of the nature of mycosis fungoides is still unsolved, but it has been shown that true visceral involvement may occur in a case which presents the classical clinical picture of the disease.

* Fraser, J. Frank: The Pathology of Mycosis Fungoides, *THE JOUR. CUTAN. DIS.*, 1917, 35, p. 793.

Clinical Report

ETIOLOGY OF CANCER OF THE LIP

DOUGLASS W. MONTGOMERY, M.D.

SAN FRANCISCO

It is quite unlikely that cancer of the lip or of any other region is due to any one etiologic factor. The etiologic value of chronic irritation, however, seems to rest on an assured basis. As far as the lower lip is concerned the usual irritant is tobacco, and this is now so well recognized that, if a patient arrives suffering from cancer of the lower lip, the inquiry as to the use of tobacco is made, and, if the sufferer is found to be an excessive smoker, it is usually conceded that an adequate reason for the presence of his affliction has been found. If, however, the patient does not smoke, the etiology is concluded to be obscure, and rarely any further inquiry is made. The following instance, while not conclusive, yet is most interesting, and the explanation adduced may be correct.

REPORT OF CASE

Clinical History.—A physician, aged 58, and enjoying good general health, called on me, April 9, 1915, on account of a lesion on the exposed red of the lower lip just to the left of the median line. It was about 4 mm. in diameter and was slightly raised, accurately circular and circumscribed, rounded and flattened, and was a little deeper red than the surrounding surface. There was some infiltration which could be appreciated by the opposing finger and thumb. This lesion had been present for some weeks. A thin pellicle would form on its surface which would peel off like damp wall-paper, leaving a surface dotted with raw loculi sensitive to salt. With each peeling the affected area became more restricted.

He had not smoked for years, in fact not since his student days in Germany.

I applied trichloracetic acid and ordered the frequent application of boric acid ointment.

More than two years after this, May 2, 1917, the physician again called, and he now had a raised, flattened circular elevation, 5 mm. in breadth in the exposed red of the lower lip, 5 mm. to the left of the median line. It was probably a little infiltrated, and a slight scale formed on it each morning. It looked much like a very early precancerous seborrheid of the lower lip.

Etiology.—The interesting thing about it was the patient's suggestion as to the origin of the lesion. Every morning while shaving he would catch the lower lip with his teeth in order to put the skin on the stretch, and, as he demonstrated to me, the left median incisor struck this very spot. The patient himself had no doubt that this recurring irritation was the cause of this malady. And it also seems to me that these repeated traumatisms on a seborrheic epidermis furnishes an adequate explanation for the occurrence of the lesion.

Treatment.—This time I used as treatment a radium plaque containing, in a dime-sized area, 24.23 mg. of radium element. This was shielded with aluminum, 0.02 in thickness, and retained in place for ten minutes.

Results.—I did not see the patient again for nine months, when he came in for a warty growth on the dorsum of the tongue. There was no trace of the lesion on the lip, and the markings of the mucous membrane in the previously affected situation were absolutely normal.

COMMENT

It may be objected that the proof that this labial lesion was cancerous is not conclusive. Its clinical appearance, its induration and its recurrence after treatment were all points in favor of this hypothesis, however. That it cleared up entirely under adequate radium treatment is just what may be expected in such lesions and does not at all exclude cancer or a precancerous condition.

Correspondence

MATCH-BOX DERMATITIS

To the Editor: I would like to call the attention of your readers to the etiology of a novel dermatosis which is suggested by the name of "match-box dermatitis." And first let me report my own case. For the past two months I have noted an oblong patch of what seemed to be a dry eczema on the anterior surface of my upper thigh. The skin was reddened, rough and slightly thickened and, though there was no annoying pruritus, slight excoriation resulted from scratching. Like a barefooted cobbler's child it received no treatment and its cause was unsuspected. One day I was asked by a medical friend to see a patient who had a similar patch of dermatitis on the upper, anterior portion of his thigh. Redness and swelling showed the inflammation to be more acute and my colleague suggested that it might be caused by a safety match-box as in the cases recently reported by C. Rasch and others in a Danish journal. Comparison of his thigh with my own showed patches of exactly similar location, size and outline. They were vertically oblong and opposite the left trouser's pocket in which each of us had been in the habit of carrying a safety match-box of the larger size.

I have no doubt that this dermatitis results from phosphorus or some other constituent of the dark brown striking surface of the box and that the irritation is sufficient to act through two or three layers of clothing. Since transposing the contents of my right and left trousers' pockets a week ago, the dermatitis has subsided on my left thigh but has not as yet appeared on the right.

Whether all safety match-boxes are noxious or only certain brands I cannot say at present, but it is evident from the foregoing that "match-box dermatitis" is not confined to Denmark.

GEORGE HENRY FOX, M.D.

Society Transactions

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, March 26, 1918

JAMES C. JOHNSTON, M.D., *President*

SARCOMA. Presented by DR. KINGSBURY.

The patient, a woman, had had a pigmented mole on the forehead. About eight months ago it became inflamed and she picked it, and then on the advice of her physician it was operated on by a surgeon. Later, lesions appeared on the top of the scalp and then she received radium treatment, of eight hours, six hours, and two hours' duration. After the radium applications she had considerable rise of temperature and swelling of the face and a fairly clear history of erysipelas. The condition was still active.

DISCUSSION

DR. TRIMBLE said that it was only another instance of the futility of operation in melanoma.

DR. MACKEE said that his experience in these cases of recurrent sarcoma was that radium or roentgen-ray treatment would cause the individual lesion to disappear, but would have no influence on the outcome of the case. Sarcoma, the speaker said, was a good deal like malignant epithelioma, in that one could never tell how soon metastasis might occur. It might occur as soon as there was clinical evidence of the disease. If the disease was localized, a wide excision might result in a cure, but recurrences were frequent because metastasis occurred before the excision. In the case under consideration there was nothing to do but apply radium or roentgen rays. The nodule over the mandible would probably disappear, but it would only delay matters for perhaps a year or so, for a visceral metastasis would probably carry the patient away.

DR. KINGSBURY said that the woman had already had radium treatment applied to the lesions by a physician familiar with that work, and every time it was applied it seemed to stir up matters and make the condition worse. There seemed to be a progressive metastasis of the growth. Dr. Janeway, who had made the applications, thought it inadvisable to use radium on any of these cases of sarcoma, and doubted if he would ever again try it on this type of sarcoma.

DR. MACKEE said that his experience did not agree with that of Dr. Janeway. Dr. Wise would probably remember a case of multiple sarcoma, which the speaker had treated, in which the lesions were scattered all over the body, and every lesion disappeared under one intensive application of beta rays. The gamma rays were not so effective. The treatment, however, only delayed matters, for later the patient developed pulmonary metastases. The speaker said that he had had about fifteen cases of sarcoma, most of them having been referred by Dr. Johnston for roentgen-ray treatment. Most of the patients were still living, simply because metastasis had not occurred.

DERMATITIS HEMOSTATICA. Presented by DR. WISE for DR. FORDYCE.

The patient, Kate G., aged 50, gave a history of having had two miscarriages and one living child. The husband was said to be healthy. The duration of

the condition of the skin was one year. In addition, she had a leukoplakia of the tongue. On the lower portion of the right leg, anteriorly, was a patch of reddened skin, the redness partially disappearing under pressure. In the midst of the patch were numerous "cayenne pepper" spots. The leg was deformed, edematous, and swollen as a result of varicose veins. The other leg was also edematous, but free from the dermatosis. There was no pain or itching, and there had been no preceding eczema.

DISCUSSION

DR. MACKEE said the case was interesting because of the confusion existing relative to the differentiation of several entities having as a prominent feature vascular disturbances in the skin of the legs.

One entity was Majocchi's purpura annularis telangiectodes, of which several examples had been presented to the Society. Clinically it could be recognized by recurrent attacks of an eruption that could be divided into three stages—telangiectatic, purpuric, and pigmentary. The elementary lesion was a punctum, and these puncta coalesced, spread by the formation of peripheral satellites, while the central puncta disappeared, leaving pigmentation and, perhaps, atrophy. In this way, annular lesions were formed. After several months, the eruption disappeared, but usually returned in a year or so.

Schamberg's progressive pigmentation started as red puncta, usually on the shins. These puncta also coalesced, and occasionally produced annular configurations. As the puncta disappeared, a deep pigmentation remained and persisted for months and years. The eruption did not occur in definite outbreaks, but was steadily progressive.

Klotz' dermatitis hemostatica was a somewhat similar condition, occurring in varicose and edematous legs and likely to be associated with an eczematized skin.

Histologically similar features had been found in the three types, although hyaline degeneration and sacculation of the vascular walls had been more constantly found in purpura annularis telangiectodes. Increase in the number of vessels, panarteritis, infiltration, etc., had been encountered in all types.

The speaker thought that the case under discussion could be definitely identified as one of Schamberg's progressive pigmentation.

CASE FOR DIAGNOSIS. TINEA? SYPHILIS? Presented by DR. WISE for DR. FORDYCE.

The patient, Annie K., aged 31, single, presented lesions on the hands of two months' duration. When she first presented herself at the clinic three days earlier, a tentative diagnosis of syphilis was made on account of the difficulty of differentiation between tinea, syphilis, or eczema, although the history in regard to syphilis was entirely negative. The hands were covered with a squamous and serpiginous, scaly eruption consisting of isolated and coalescing lesions, some of them scalloped, others dumbbell-shaped, giving evidence of spontaneous involution. The lesions closely resembled eczematoid ringworm. As a result of treatment, they had greatly changed in appearance, having become vesicular and pustular. The microscopic examination for tinea was negative.*

DISCUSSION

DR. WHITEHOUSE said that the case interested him very much. He was often confused by the fact that this type of dermatitis spread and undermined the epidermis with outlying vesicles and pustules. Probably some of them were cases of ringworm, but it had been difficult to find the fungus in several

* Subsequent examination of the patient's blood revealed a ++++ Wassermann reaction.

instances. These conditions were very puzzling and difficult to cure. He hardly knew where to classify them.

DR. ROBINSON said he would consider it as a dermatitis, probably streptococcic in origin.

DR. HOWARD FOX recalled cases published by Dr. Ormsby on dermatoses of the palms and soles, particularly those that looked like eczema. He proved that a great many of these cases were really ringworms, and suggested chrysarobin for treatment. Dr. George H. Fox had treated many of these cases that resembled chronic eczema. It seemed probable that some of them were ringworm and were cured with chrysarobin.

DR. TRIMBLE said that he had read the article, but Dr. Ormsby had laid as much stress on benzoic and salicylic acid. He himself, however, had had better success with chrysarobin.

SARCOID AND FAVUS. Presented by DR. KINGSBURY.

The patient was a married woman and the condition had existed for about a year. She presented a discoid patch on the face composed of several small plaques arranged in a circle showing some infiltration, telangiectasia and central atrophy with scaling. The lesions on the arm were more deep seated and nodular in character. The scalp presented alopecia and scarring from favus.

DISCUSSION

DR. WISE said that this was the third or fourth time within the year that he had seen cases presenting this combination of lupus erythematosus and sarcoid. The lesions on the face looked like lupus erythematosus, the lesions on the arm were probably sarcoid.

DR. TRIMBLE agreed with the diagnosis of sarcoid, but thought that the lesions on the face were also sarcoid and not lupus erythematosus.

DR. WHITEHOUSE agreed with Dr. Trimble in regard to all the lesions.

DR. MACKEE said that both lupus erythematosus and sarcoid must be considered. The adherent scales, the telangiectasia, and the superficial central atrophy suggested lupus erythematosus. The nodules did not exclude lupus erythematosus, because nodules occasionally occurred in that disease. As a rule, however, nodules in lupus erythematosus were due to edema instead of infiltration and, therefore, they did not last very long. The fact that such lesions had existed for several months in the case under discussion was suggestive of sarcoid. Another point in favor of sarcoid was the fact that the four small nodular lesions on the right side of the nose were arranged in an annular configuration. While the speaker favored a diagnosis of sarcoid, he thought it would be necessary to confirm the differentiation by microscopic study. The lesions on the arm were definitely sarcoid, but this did not preclude the possibility of lupus erythematosus of the face, for the two conditions were occasionally found in the same patient. The speaker called attention to the anatomic situation of the arm lesions—in the subcutaneous tissue, which would indicate the Darier-Roussy type of sarcoid. The face lesions, on the other hand, were in the skin and were probably representative of the Boeck type.

LUPUS VULGARIS AND EPITHELIOMA. Presented by DR. WISE for DR. FORDYCE.

The patient, D. K., aged 58, had a lupus of twenty years' duration. His wife had had two miscarriages, three children living, and one dead. The lupus occupied the entire front portion of the neck as well as the lower part of the right cheek, extending from the jaw line on the left side to 4 inches downward on the neck. The lupoid skin was dry, scaly, and nodular at the periphery. The under portion of the patch consisted of an ulcer 5 inches long by 1½ inches

broad, with sharply defined rolled edges, and in the central portion there were several islands of whitish nodules. There were enlarged glands in the submental region, forming a tumor resembling a goiter, which had appeared five years before. The man had never had any treatment for his lupus. He had been sent to the hospital for the removal of the gland if possible, but it was not thought advisable to operate on it.

DISCUSSION

DR. TRIMBLE said that someone had suggested it might be a lupus tumidus.

DR. HEIMANN said that he had mentioned the fact that it looked like lupus tumidus, but the lesion was not on the ear. It was a boggy infiltration, perhaps a granuloma.

DR. MACKEE said that clinically the condition looked very much like an ulceration resulting from roentgen ray or radium applications. There was an indolent ulcer and an underlying edema of the subcutaneous tissue, both of which could be caused by roentgen rays or gamma rays. The history, however, precluded this diagnosis.

DR. WISE thought that the tumor under the chin was not a skin disease, but was underneath the skin and was probably a gland which might be tuberculous. He did not think it could be classed as a lupus tumidus for the reason that it was a subcutaneous growth.

LUPUS VULGARIS. Presented by DR. SCHWARTZ.

C. H., aged 47, presented a lesion on the face of sixteen years' duration. The case was shown because of the distribution of the lesion, which suggested lupus erythematosus, although there was no doubt of its being true lupus vulgaris. The patient presented the typical destruction of the tip of the nose seen in lupus vulgaris. The patient also had a lesion of the knee, and the roentgen-ray showed an exudative inflammation with no bone involvement.

DISCUSSION

DR. HOWARD FOX agreed with the diagnosis of lupus of the face.

LYMPHANGIOMA CIRCUMSCRIPTUM, SHOWING EFFECTS OF RADIUM TREATMENT. Presented by DR. TRIMBLE.

The patient was a young woman, aged 26, who had previously been presented before the Society. The lesion, which had existed since childhood, had been unsuccessfully operated on at that time, and was followed by a rather large hypertrophic scar. When the patient was first seen, about a year ago, many deep-seated lymph vesicles were observed over the scar, and several fairly large areas of papular or verrucous outgrowth. Three exposures of radium had been given by Dr. MacKee and three by Dr. Trimble. The radium had removed all the warty tissue and caused many of the collections of lymph vesicles to disappear. The hypertrophic scar was about the same, perhaps a little flatter than when first observed. A photograph was shown illustrating the appearance of the growth before treatment was started.

DISCUSSION

DR. HOWARD FOX said that lymphangioma was best treated with radium. Dr. Simpson of Chicago had obtained some excellent results.

DR. TRIMBLE said that he had four cases under radium treatment, and this was the only one which had been treated long enough to show improvement. The speaker said that this case also had a brawny swelling underneath, which was undoubtedly a deep-seated plexus of lymphatics. He did not, however, expect any improvement in that. He did not expect to go further in his treatment after the superficial or skin lesions were removed.

RADIODERMATITIS. Presented by DR. WISE for DR. FORDYCE.

George R., aged 29, received an injury of the back five years before, resulting in a fracture of the vertebrae, for which a roentgenogram was made a number of times. About three weeks after the last exposure, an erythema with a follicular eruption appeared. When presented, the radiodermatitis had existed for twelve weeks. There was a sharply defined circular plaque, 6 inches in diameter, between the umbilicus and the pubes. In the upper segment of this plaque were prominent follicular excrescences; in the lower segment, the follicles had coalesced to form a uniform patch. The lesions were more pronounced in the center than in the peripheral portions, the area corresponding to the window of the roentgen-ray tube holder. About an inch from the upper border there was a slight depression the size of a watermelon seed. The patient stated that he had had nineteen or twenty roentgen-ray pictures taken.

DISCUSSION

DR. MACKEE said he had never before seen a radiodermatitis with such marked follicular involvement.

DR. WISE asked whether it might turn out to be a second degree burn.

DR. MACKEE said that it was a very mild second degree radiodermatitis. If it was a severe type of the second degree, or a third degree dermatitis, the progress would have been more rapid.

DR. TRIMBLE reported on a case presented at the November meeting. He had then shown two patients with a diagnosis of sarcoid, one being a young Scandinavian with two or three lesions in the right malar region. They were rather milky white with a mild purplish color and had been there for about two years. In this case he had made a definite diagnosis of sarcoid clinically. The other patient was a young woman with a lesion on one side of the nose which was depressed, with slight atrophy in the center, and a waxy border, bearing some resemblance to an epithelioma that had not ulcerated. This case turned out to be sarcoid. There was some difficulty in getting a biopsy from the young man, but enough tissue was obtained to make the slides. It had some resemblance to sarcoid, but no giant cells were found, and it had not been definitely decided to be sarcoid, although he was still inclined to believe it such from the clinical evidence. The case of the young woman was definitely sarcoid.

DR. HEIMANN said that the absence of giant cells alone would not be sufficient to exclude sarcoid, if the rest of the changes suggested tuberculosis.

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meeting, April 9, 1918

HOWARD FOX, M.D., *Chairman*

KERATOSIS PALMARIS ET PLANTARIS. Presented by DR. PAROUNAGIAN.

The patient, a girl, aged 13 months, was born in the United States; both parents had been born in Russia. The disease had been present one month and involved the palmar and dorsal surfaces of the hands. The surfaces were thickened, reddish and scaly and somewhat fissured with sharply margined borders. As far as could be ascertained there were no subjective symptoms.

DISCUSSION

DR. WALLHAUSER said the condition presented an inflammatory character which was opposite to the grayish white color seen in keratosis palmaris et plantaris.

DR. WISE agreed with the diagnosis as presented.

DR. SATENSTEIN made a diagnosis of congenital syphilis on account of the inflammatory condition present.

DR. PAROUNAGIAN said he examined the patient carefully and did not think the case resembled syphilis; in the first place, this would be a tertiary manifestation and the child was only 13 months old and well developed. The mother's history was negative as to miscarriage or anything of the kind. The thickening led the speaker to make the diagnosis of keratosis palmaris. The Wassermann reaction was negative.

DR. SATENSTEIN said the child was 13 months old and had only two teeth and a child this age should have six teeth, evidencing retarded development.

DR. WISE said that even if the child had a positive Wassermann reaction the diagnosis of keratosis palmaris still might hold good. He did not think it would heal under antisypilitic treatment but that it would heal under roentgen treatment.

DERMATITIS HERPETIFORMIS. Presented by DR. WISE.

The patient was a woman, aged 67, from Dr. Fordyce's clinic and had had the condition for two years. There were papules and broken down vesicles on the face, chest, back and upper and lower extremities; the upper and middle part of the back being more or less immune. There was pigmentation and the patient said the affected parts were very itchy. The speaker considered the case to be an unusually classic picture of dermatitis herpetiformis.

DISCUSSION

DR. PAROUNAGIAN agreed with the diagnosis.

DR. WEISS said these cases were very rebellious and became worse after active treatment. He said he would like to know from those who had had experience, whether in these cases short exposures to the roentgen ray would do any good.

DR. WISE said he did not think that they had treated Duhring's disease with the roentgen ray. They found that sulphur ointment helped the patient and sometimes the eruption disappeared and did not recur. They gave increasing doses of arsenic with good results, at times.

DR. SATENSTEIN said three cases had cleared up under autoserum. He also said he would like to hear from Dr. Fox regarding the autoserum treatment of dermatitis herpetiformis.

DR. FOX said this case reminded him of a woman, aged 80, who had a severe eruption and who was extremely nervous and mentally affected. Dr. Howard Fox gave her autoserum treatment and not only did her dermatitis herpetiformis clear up, but the general condition of the patient was greatly improved. In a number of cases he had seen good results from autoserum.

DR. SATENSTEIN said he recalled that at the American Dermatological Association it was said that autoserum in dermatitis herpetiformis was almost a specific. He thought every case of this disease should be treated with autoserum but one must be careful of the gastro-intestinal condition.

DR. MOUNT said he had one case under autoserum without any improvement; not even the mitigation of the itching.

DR. WISE asked Dr. Mount how many injections he had given.

DR. MOUNT said he had given three or four injections.

DR. WISE said three or four injections were not enough, he should have given twenty injections.

DR. MOUNT said he gave 25 c.c. of serum.

DR. SATENSTEIN said it made no difference how much blood was drawn or how much serum was injected.

CARCINOMA ON A SYPHILITIC BASE. Presented by DR. ROSEN.

The patient, a man, aged 34, born in Russia, gave a history of an initial lesion fifteen years ago, with secondaries. He had been treated with mercury injections for about one year at the time. For eight or nine years past he had noticed a peculiar condition of the tongue; being painful the past two years. On admission to the Vanderbilt Clinic one year ago the tongue showed a marked interstitial glossitis with slight ulceration on the outer edge opposite the second molar tooth. The patient also showed a markedly positive globulin, 23 cells, a + + + + Wassermann down to 0.2 and a paretic curve (5555543000). His pupils were markedly irregular and reacted very sluggishly to light. Accommodation was normal. He received two courses of arsenobenzol, and mercury injections, eight of the former and twelve of the latter in each course. His condition improved; and he did not return to the clinic for about two months. During this time the ulceration on the edge of the tongue increased in size until it was about the size of an almond, with raised edges and markedly infiltrated base.

DISCUSSION

DR. OCHS recalled a case of Dr. Sauer's, a colored man, with a supposed gumma of the tongue, but really an epithelioma, who was given six or eight arsphenamin (salvarsan) injections. The speaker saw the patient a short time ago and his tongue was very much worse; the epithelioma greatly increased in size, and he had probably died since that time. The speaker warned about the use of arsenic in tongue lesions.

DR. SATENSTEIN asked if the diagnosis had been decided on as epithelioma.

DR. OCHS said he thought the case was epithelioma.

DR. ROSEN said he agreed with Dr. Ochs in regard to the use of arsphenamin (salvarsan) in tongue lesions. In such lesions one had to be careful in the use of arsenic.

HYDROA VACCINIFORME. Presented by DR. BECHET.

The mother stated that the child was 18 months of age and had had recurrent attacks of the eruption since birth. The eruption was entirely confined to the face, particularly the cheeks and ears. The course of the disease as observed by the speaker was as follows: The lesions, pea to dime-sized, were at first vesico-bullous, filled with clear serum, which soon became milky in color; the lesions drying down, forming a rather thick crust, which on dropping off left a reddened area, which later formed an indented scar. On the night of presentation the end-process of the eruption was most prominent, some of the lesions were crusted, in others the crusts had come off leaving reddened areas, in which scarring was clearly noticeable.

DISCUSSION

DR. SATENSTEIN made a diagnosis of ordinary impetigo which had been maltreated.

DR. WISE said he thought Dr. Bechet's diagnosis had to be seriously considered. It was a difficult case to decide on because the condition was usually seen in older patients. The child had not had time to develop atrophic and parchmentlike lesions. The general appearance was in favor of hydroa vacciniforme but it would be impossible to make that diagnosis in the stage in which the disease was at the time of presentation, although the speaker said he favored that in preference to any other.

DR. BECHET said that an ordinary impetigo was the first diagnosis, but in view of the history, the course of the disease, the scarring, the persistence of the lesions recurring in attacks, it seemed to him that hydroa vacciniforme was the most plausible diagnosis.

ERYTHEMA NODOSUM AND MOLLUSCUM CONTAGIOSUM. Presented by DR. OCHS.

There was nothing unusual about this case except the combination of erythema nodosum with molluscum contagiosum on the body. The erythema nodosum was of three weeks' duration. The molluscum involved the back and anterior part of the body. The site was unusual as it usually occurred around the mouth. The erythema nodosum was extensive as it extended from the upper part of the thighs down to the ankles and was very painful.

DISCUSSION

DR. SATENSTEIN said he thought the lesions were thrombotic in character and would probably become gangrenous. He did not think it was an ordinary type of erythema nodosum.

DR. WEISS said in erythema we found thrombosis due to toxins circulating in the blood, acting as irritating substances to the skin and causing the peculiar eruption with an occasionally slight gangrenous condition. In erythema nodosum gangrene was rarely seen but the thrombosis of the capillaries explained the pains when present.

DR. WISE said they were typical lesions of erythema nodosum and he doubted if any of them would break down.

DR. OULMANN said he agreed with Dr. Wise.

DR. OCHS said the child had a distinct history of rheumatism. He had never seen one of these cases ulcerate, differing thus from erythema induré (Bazin).

CASE FOR DIAGNOSIS. Presented by DR. OCHS.

The patient developed a brownish papule, lentil-sized, on the left side of the nose four years ago, which he took to be a wart. It was only slightly itchy and he scratched it. A scab formed and fell off, leaving a central depression, the ring so formed flattened out and began to cicatrize, leaving a depressed circular scar, and other new lesions appeared. When presented before the Section the entire upper part of the face was studded with light rose to brownish papules varying in size from pinhead to a lentil and also lesions at the end of their evolution. The evolution apparently consisted in the appearance of a small papule which grew to the size of a lentil, then the center would become depressed and a scab would form which would drop off, leaving a circular depressed scar. Such a lesion was seen alongside of the nose which corresponded in size to that of the original lesion. The patient stated that he had a brother and sister in Saranac with tuberculosis. The patient had recovered from an attack of typhoid a few days before presentation and was to leave the following day to visit his brother and sister at Saranac. The evolution of a lesion required about two or three months.

DISCUSSION

DR. FOX said this was a case in which the diagnosis of multiple benign cystic epithelioma could be made.

DR. MOUNT said it was one of three conditions and it would require a microscope to settle the question. The lesions were either colloid degeneration of the skin, benign cystic epithelioma or some form of tuberculous process, while not directly due to the bacillus, perhaps some tuberculid affair.

DR. OCHS said the patient was not suffering from tuberculosis.

DR. ROSEN said he would make a diagnosis of benign cystic epithelioma undergoing epitheliomatous degeneration.

DR. SATENSTEIN said his recollection of benign cystic epithelioma was that once established, if they disappeared they did not leave any scars behind.

Ordinary epithelioma did not take this course. There was a tuberculous type of sarcoid which disappeared and took the course of tuberculids and some of these lesions were following that course. He thought it was a type of sarcoid.

DR. FOX said there was an epidemic of sarcoid now as there was of dermatitis herpetiformis years ago when everything that we could not recognize was called by that name. He said he would not think of sarcoid in this case.

DR. WISE thought the eruption was an unusual form of tuberculosis.

DR. FOX said he considered the case as cystic epithelioma of the benign form. There were one or two waxy lesions and he would regard those as typical of epithelioma.

DR. PAROUNAGIAN asked if it would not be well to take a Wassermann test.

DR. OCHS said when he saw the patient the day before presentation he thought it was epithelioma but after examining him more carefully he was inclined to consider it as tuberculous. He ruled out benign cystic epithelioma. Although the lesions had gangrenous centers and formed scar tissue, yet when they did the scar did correspond to the original lesion. The patient's mother was a nurse and gave a lucid description of the course and she was positive that the lesion on the side of the nose was the exact size of the original lesion. Each lesion started as a small papule, pinkish in color, changing to brown. There was a central depression similar to acne varioliformis. When the necrotic area filled out it looked like a doughnut and that in turn disappeared and left a scar. This was not the description of epithelioma. The speaker regarded the case as in the category of tuberculosis.

DR. ROSEN said the patient had lesions under the eyelids which were typical of benign cystic epithelioma with waxy appearance and telangiectasia and in certain locations a tendency toward coalescing. He could not conceive of them being characteristic of tuberculids. The peculiar part was the course which they assumed. He made a diagnosis of benign cystic epithelioma undergoing malignant degeneration. The microscope would settle the question.*

TUBERCULOSIS VERRUCOSA CUTIS. Presented by DR. WISE.

The patient, V. M. R., aged 33, an unmarried man, presented a large patch of infiltrated, crusted and inflamed skin, involving the inner half of the right buttock and intergluteal region. The disease started eight years ago, as a fissure in ano and gradually extended from the anus to the surrounding skin of the buttock and perineum. The surface of the patch presented the characteristic verrucous and crusted appearance, with small areas of suppuration scattered here and there.

FOLLICULITIS DECALVANS. Presented by DR. WEISS.

The patient had lesions on the scalp with deep atrophic scars; also recent lesions on the occipital part of the head.

DISCUSSION

DR. WISE said he doubted if the diagnosis was correct. He thought it was acne varioliformis.

DR. BECHET said that he agreed with Dr. Wise. He had seen one case of folliculitis decalvans, and the appearance of the lesions in that case was totally different from the one under consideration. He was under the impression that folliculitis decalvans was a follicular and perifollicular inflammatory process, spreading peripherally, and leaving in the center scarred areas, with little or no hair growth. Dr. Weiss' case simply presented the ordinary type of premature baldness, with a dozen or so reddened papules, many of which

*The microscopic examination, later, revealed a basal cell epithelioma.

had necrotic centers. There were a few variola-like scars on the temples. It was his opinion that the case was one of ordinary alopecia, complicated with acne varioliformis. He considered acne varioliformis and folliculitis decalvans as distinct clinical entities.

DR. FOX said it was a folliculitis whether it was called acne varioliformis or sycosis. It was not a typical case of folliculitis decalvans.

DR. WEISS said he made this diagnosis because the patient had two new patches with follicular involvement and as far as he knew they were similar processes. Dr. Wise said there was a great difference between folliculitis and acne necrotica. He would be glad to know the differential points.

LUPOID FOLLICULITIS (?) PAPULONECROTIC TUBERCULID.
Presented by DR. WEISS.

The patient, a male adult, had had the condition for six years. He stated that on a rainy night he slept outdoors under a pile of rails and that the rust and water fell on his face. There were lesions which resembled papulonecrotic tuberculids, starting at the left nostril and extending in a semi-circular way to the chin.

DISCUSSION

DR. WISE considered it as ordinary sycosis.

DR. MOUNT thought it was sycosis.

DR. WEISS said the sycosis described as follicular did not show lesions from the nose to the chin, at the base of which there was pus formation.

LUPUS TUMIDUS OF LUPUS VULGARIS TYPE. Presented by DR. WEISS.

The condition had been present fourteen years. On the right cheek there was a lesion which had disappeared for two years without having had any treatment, then reappeared on the forehead and extended to the cheeks, ears and nose. There were also numerous apple-jelly like nodules visible under the mucous membrane of the lower lip. The patient had been treated at the Skin and Cancer Hospital with salves, at the Polyclinic for one year with carbon dioxid snow and at Bellevue with pastes. The speaker had given him four doses of roentgen ray up to the point of a dermatitis, under which the condition had improved very much. The speaker said that which made him think of lupus vulgaris was the lesions on the lower lip which showed distinctly small apple-jelly nodules on the mucous membrane. While the configuration and scaling pointed toward lupus erythematosus, yet the deep infiltration and the nodules on the lip made one think of the possible presence of both conditions.

Review of Dermatology and Syphilis

Under the direction of FRED WISE, M.D., New York

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ANNALES DES MALADIES VENERIENNES

(April, 1918, 13, No. 4)

Abstracted by PAUL E. BECHET, M.D.

SCLEROTIC SYPHILITIC MYOSITIS OF THE LONG MUSCLES. LEVY-FRANCKEL, p. 193.

The author reports three instances of the disease. In all three the thigh muscles were involved. The condition proved to be a diffuse sclerosis involving the entire muscle, with absence of necrosis or gummatous change. It occurred late in two cases, eighteen years in one, twenty years in another; the third case appeared only three years after the chancre. Levy-Franckel found the lesion rare, it occurred only three times among 259 cases of tertiary syphilis, observed over a period of one and one-half years. It was exceedingly rebellious to treatment.

MASKED SYPHILIS. DREYFUS, p. 199.

Dreyfus under this title reports the following interesting cases: (a) Acute polyarticular rheumatism, with pleurisy, and endocarditis, in a girl of 20. Intensive antirheumatic treatment gave no results. The Wassermann in the blood and serous fluid from the pleural cavity was strongly positive. Spirochetes were found in the centrifugalized fluid from the pleural cavity. There was a complete cure after specific treatment. (b) Varicose ulcers. Man, aged 66, with extensive ulcerations on both legs, of ten years' duration. These were unsuccessfully skin grafted. The multiplicity of the ulcers, absence of varicose veins in the right leg, enlargement of postcervical glands, and positive Wassermann reaction, indicated the nature of the disease. (c) Chronic articular rheumatism in a woman, aged 61, of ten years' duration, with tendency to deformation. Various baths, health resorts, roentgenotherapy, etc., were without result. The patient stated that the pain became aggravated at night. The Wassermann reaction was positive. There was immediate cure under specific treatment. (d) Anal fissures in a girl of 23, without any of the stigmata of heredo-syphilis, other than a certain asymmetry of the face and separation of the upper incisors. The patient had always been well, but since very early childhood had had extremely sensitive and painful anal fissures. The Wassermann reaction was positive. Immediate cure followed antisyphilitic treatment. (e) Scrotal tongue and macroglossia. Heredo-syphilitic? Ozena and chronic gastritis in a young woman of 26, of years' duration. She was

married four years, and had had no miscarriages or children. There was no history or evidence of former syphilis. A sister had typical Hutchinsonian teeth. The Wassermann reaction was positive in both cases. Under treatment the ozena (after the discharge of sequestra) and the gastritis disappeared entirely. The father admitted having contracted syphilis years previously. (f) Hypertrophic alcoholic cirrhosis of the liver (Hanot-Gilbert). The patient had been tapped six times, ten different medical advisers had given a fatal prognosis. A seventh paracentesis was made, and twenty liters of fluid were removed. The patient was apparently moribund, with typical jaundiced facies, and presented for examination a greatly enlarged liver, covered with tumors of variable size and hardness. He complained of intense and persistent nocturnal headache. The patient freely admitted alcoholic indulgence, but denied venereal infection. The Wassermann reaction being positive he was reinterrogated, and then remembered having had a small painless lesion on the lower lip twenty years previously, followed by enlarged cervical glands and sore throat. He had never had any eruption on the body. Syphilitic treatment brought about complete recovery.

REFLECTIONS, PROPHYLACTIC AND MEDICAL. CARLE, p. 216.

PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE

(*March, 1918, 40, No. 5*)

Abstracted by WILLIAM H. GUY, M.D.

ACNE KELOID. E. G. GRAHAM LITTLE, p. 29.

A rather extensive case with two types of lesions: an early perifollicular plug of blackened and hardened tissue, looking very much like an acne comedo, but differing in that the plug cannot be expressed, and the second type of lesion being a hard shotty papule raised about $\frac{1}{8}$ inch above the level of the surrounding skin. In some of the lesions a small bead of pus was visible. The onset of the condition was unusually rapid and the involvement extensive, lesions being noted throughout the scalp. The nape of the neck was free of lesions. In discussing the case Dr. Whitefield suggested that it was a case of acne indurata rather than acne keloid.

LUPUS VULGARIS, WITH CUTANEOUS HORNS. W. KNOWSLEY SIBLEY, p. 54.

A case of fifteen years' standing with multiple cutaneous horns in the center of lupus vulgaris lesions situated near the left side of his mouth.

KELOID. S. E. DORE, p. 56.

An extensive keloid involving the face of a child. The growth had formed in the site of a dog bite five years before, and was slowly enlarging. For treatment the application of radium was recommended.

AMERICAN JOURNAL OF THE MEDICAL SCIENCES

(*January, 1918, 155, No. 1*)

Abstracted by R. C. JAMIESON, M.D.

SOME POINTS RESPECTING THE LOCALIZATION OF SYPHILIS ON THE AORTA. OSKAR KLOTZ, p. 92.

Klotz' reasoning would indicate that the aorta is so frequently involved in syphilis on account of its vascularity and abundant lymph supply as well as

its proximity to lymphatic supply glands and a lymphatic drainage bed which is in the mediastinum. This metastasis is not accounted for except by the biologic properties of the organism and favorable conditions for growth in that location.

(Ibidem, February, 1918, 155, No. 2)

CHEMICAL ANALYSES OF THE STOMACH CONTENTS FROM ONE HUNDRED PELLAGRINS. M. H. GIVENS, p. 221.

These analyses showed that there was no definite relation between the absence of pepsin and free hydrochloric acid and sex, age, duration of pellagra and clinical symptoms, children showing the same general changes as adults although they do not have an absence of free hydrochloric acid and pepsin as frequently as the latter do.

The acid and pepsin do not always disappear together and they are probably present more often than has been expected.

(Ibidem, March, 1918, 155, No. 3)

SYPHILIS OF THE LUNG. H. LISSER, p. 356.

Syphilis of the lung, while uncommon, is not so rare as generally believed. It is very difficult to diagnose clinically as the evidence is not typical, but it should be ruled out in all cases of pulmonary disease with negative sputum. Treatment on antisyphilitic lines gives remarkable results.

UNSUSPECTED SYPHILIS. J. S. McLESTER, p. 320.

McLester reports the results of 567 Wassermann reactions made on consecutive patients, all of them seen in consultation in private practice among a well-to-do class; 16.5 per cent. were positive, 1.3 per cent. had clinical evidence with a negative Wassermann. Of ninety-four positive reactions, thirty-six admitted infection or had a suspicious history, fifty-eight had no suggestive history.

Among these cases were found aortic aneurysm, aortitis, skin and throat lesions, paroxysmal hemoglobinuria, neuroretinitis, cerebrospinal fluid changes, gastric and duodenal ulcers. He believes the routine use of the Wassermann test in private practice fully justified.

(Ibidem, April, 1918, 155, No. 4)

THE RELATION OF CONGENITAL SYPHILIS TO MENTAL DEFICIENCY. W. H. HIGGINS, p. 549.

Of fifty cases admitted to the psychological clinic, twenty-one, or 42 per cent., gave a positive Wassermann reaction. General health was good although all had dental caries, and other abnormalities. Mentality was delayed from two to eight years, the ages of the cases varying from 7 to 16 years.

THE RELATION OF LUPUS ERYTHEMATOSUS DISCOIDES TO TUBERCULOUS INFECTION. R. S. WEISS and J. J. SINGER, p. 528.

Twelve patients who had lupus erythematosus discoides are presented and who also had evidence of tuberculous infection. The authors found 41.7 per cent. of their patients had a family history of tuberculosis; forty-nine out of fifty cases reacted positively to tuberculin. These facts, however, do not necessarily mean that there is a direct relationship between lupus and tuberculosis as cases of lupus erythematosus have been benefited by intravenous injections of typhoid and colon vaccine.

Eighty-three per cent. of their cases showed clinical evidence of tuberculosis, but in only one case definitely tuberculous was there any probability of a tuberculous toxin in the circulation.

They hold that, with the evidence on hand, no proof has been offered that there is a relation between lupus erythematosus discoides and tuberculous disease.

JOURNAL OF TROPICAL MEDICINE AND HYGIENE

(October 15, 1917, 20, No. 20)

Abstracted by R. C. JAMIESON, M.D.

NOTES ON A CASE OF ESPUNDIA AND THREE CASES OF KALA-AZAR IN THE SUDAN, TREATED BY THE INTRAVENOUS INJECTION OF ANTIMONIUM TARTARATUM. J. B. CHRISTOPHERSON, p. 229.

Three types of Leishmaniasis were found in the Sudan—cutaneous or oriental sore; mucocutaneous, naso-oral or espundia; general or kala-azar; the second type producing a great destruction of tissue and subsequent deformity.

Within a week after starting injections in the case of espundia, the ulcers had become healthy and granulating with healing edges. The treatment consisted of antimony tartrate, $\frac{1}{2}$ grain in distilled water, injected intravenously the first two days; 1 grain in double the quantity of water on the third, fourth and fifth days, with 2 grains on the sixth day and then repeated every other day. Later the dose was increased to 3 grains. Cure was effected in six weeks as shown in photographs.

In the three patients who had kala-azar, one recovered and two died, the deaths, however, occurring in cases unsuitable for treatment. These two patients were markedly emaciated, anemic and jaundiced with much enlarged liver and spleen. Splenic puncture and smear will show the Leishman-Donovan bodies.

GENERALIZED VACCINIA IN SUDAN NATIVES. A. J. CHALMERS and R. I. ARCHIBALD, p. 236.

Two types are described—a mild, vesicular eruption, appearing about the twelfth day after vaccination, lasting for nine days, and a generalized papular eruption appearing in crops, beginning twenty-two days after vaccination. The latter cleared up in about two weeks. Photographs of the eruptions accompany the article.

(Ibidem, October 1, 1917, 20, No. 19)

LOCALIZED GANGRENOUS VACCINIA. A. J. CHALMERS and R. G. ARCHIBALD, p. 217.

This case, vaccinated in the usual aseptic manner, developed an area of localized gangrene 2 inches in diameter. This began three days after vaccination and gradually extended up to the ninth day and was accompanied by a temperature of 102 to 105 F. After two weeks an attack of acute gout came on and lasted one week. This type of gangrene is not septic but vaccinal in origin. Local treatment was employed, calamin lotion without dressings giving the most satisfactory results.

NOTES ON TROPICAL DISEASES MET WITH IN THE BALKANIC AND ADRIATIC ZONES. A. CASTELLANI, p. 219.

Dermatitis interdigitalis, due to the epidermophyton cruris, is a very common disorder especially among soldiers. The usual methods of treatment are successful if persisted in. Dhobie itch (tinea cruris) is also very common, tinea capitis rare, tinea corporis is frequently seen as well as tinea barbae.

Prickly heat is very common in soldiers and the author has had good results with the use of a lotion similar to calamine lotion with the addition of salicylic acid and alcohol.

Pyogenic conditions, especially impetigo, are very frequent, while tropical ulcers are rather rare.

Other conditions observed are trichomycosis flava, nigra and rubra; Madura foot; intertrigo saccharomycetia, saccharomycosis epidermica; aspergillosis of the beard; trichosporosis; blastomycosis; sporotrichosis; accladiosis; leprosy; trench foot; ainhum; dermatosis festonata frontalis; dermatosis nigro-circinata; keratosis; keratoma plantare sulcatum.

(*Ibidem*, July 2, 1917, 20, No. 13)

ESPUNDIA IN THE ANGLO-EGYPTIAN SUDAN. B. J. SUSU, p. 146.

Report of a case of ulceration of the upper lip and nose due to the presence of *Leishmania tropica*.

(*Ibidem*, Sept. 1, 1917, 20, No. 17)

SCARLET FEVERLIKE ERUPTIONS IN THE TROPICS. A. J. CHALMERS and ARTHUR INNES, p. 19.

Eruptions appearing in malarial and dengue fever as well as in persons taking quinin are commonly classed as "erythema scarlatiniforme." One case is described in which a tonsillar infection had taken place with rise of temperature up to 104.4 F. on the sixth day, followed by an erythematous eruption of general distribution. A peculiar organism was found in the tonsil. The tongue was not a strawberry tongue.

True scarlet fever was seen only once by the authors in twenty years and others report similar experiences.

(*Ibidem*, Feb. 1, 1917, 20, No. 5)

ACANTHOKERATODERMIA PRAECORNUFACIENS. A. J. CHALMERS and S. АТИҢАҢ.

The case described in this article is one of hyperkeratosis of the feet and hands as well as some involvement of the nail beds of both hands and feet. The condition had existed for twenty-five to thirty years, with occasional breaking down of the tissues with painful fissures.

Pathologic examinations were made of sections from each area involved, a most minute description being given (not adapted to abstracting).

(*Ibidem*, June 1, 1917, 20, No. 11)

KERATODERMIA PUNCTATA. A. J. CHALMERS and A. KAMAR, p. 121.

This condition occurred in an Arab woman hairdresser with no history of syphilis. The lesions covered both palms and appeared to be rounded pits sunk into the epidermis. The horny layer of the skin becomes heaped up around a sweat duct orifice, coalesces with others and forms a translucent cupola which may exude fluid. A deep, cone-shaped horny plug forms which separates and leaves a deep cavity with undermined edges. The appearance of the skin in the photograph has a resemblance to a varolous skin.

The etiology was unknown unless it could have been due to some internal toxemia—possibly the absorption of arsenic. Disinfection of the alimentary canal with the application of salicylic acid and resorcin locally is recommended.

(*Ibidem*, Nov. 15, 1917, 20, No. 22)

NOTE ON THE VALUE OF ARSPHENAMIN (SALVARSAN) IN RELAPSING FEVER AND MALARIA. W. L. PEACOCK, p. 254.

It is concluded that arspenamin (salvarsan) is useless in relapsing fever in single doses, but it could possibly be of value if it could be given on the first day. It should also be used cautiously.

In malignant malaria, Peacock believes the drug has a stimulating effect, certainly producing no cure.

(Dec. 17, 1918, 106, No. 22)

Abstracted by C. C. TOMLINSON, M.D.

DEATH IN TABES DORSALIS. MORRIS GROSSMAN, p. 1029.

The author's conclusions, made from a study of 240 undoubted cases of tabes, are as follows:

1. The cause of death in tabes is syphilis.
2. Syphilis and tabes led to death through cardiovascular and renal degeneration and through weakened resistance to nonsyphilitic infections.
3. The probable average age at which death occurs is 53 years.
4. The mortality among tabetics over 53 years of age is 238 per thousand.
5. Tabes is as nonlethal as any form of syphilis.

WASSERMANN COMPLEMENT FIXATION TEST FOR SYPHILIS.
J. WHEELER SMITH, JR., p. 1030.

A synopsis of the studies of different serologists on the choice of the antigen, which would seem to show that a simple alcoholic antigen, with the first incubation carried out in the icebox for from four to twenty-four hours, gives the most trustworthy evidence of syphilis.

(Ibidem, Jan. 12, 1918, 107, No. 2)

THE NEW PATHOLOGY OF SYPHILIS. A. S. WARTHIN, p. 71.

A summarized report of a study covering a period of ten years and including 750 necropsies which revealed 300 cases of syphilis. A similar study recently reported from Bellevue Hospital showed but 6.5 per cent. syphilis, whereas the author's study shows 40 per cent. syphilis. The discrepancy is explained by the use of different criteria for diagnosis. The criteria in the former study were those of gross anatomic lesions such as aortitis, aneurysm, gummas, etc., whereas the author of this article included those cases presenting a special type of lesion which he thinks shows sufficient proof of its specific nature. The nature of the lesion found in the various tissues is described as appearing edematous under low-power magnification, and under high-power magnification showing varying degrees of infiltration with fibroblasts and plasma cells. Differential staining also shows varying amounts of mucin. Each of these lesions was found to be the site of a colonization of spirochetes. They were found in acquired as well as in congenital syphilis. The size of the lesion varied from a minute collection of a few cells to those just visible to the naked eye. Spirochetes were demonstrated in 75 per cent. of the 300 cases. The majority of the 300 hundred cases had not been suspected of syphilis during life and a large proportion had given negative Wassermann reactions. The cases were from the better elements of the middle class. The findings would indicate a high percentage of latent syphilis and explain a large proportion of chronic organic disturbances with ill-defined etiology.

WASSERMANN COMPLEMENT FIXATION TEST FOR SYPHILIS.
J. WHEELER SMITH, JR., p. 55.

A very vivid description of the different agents composing the hemolytic system, with a detailed description of the methods used in their preparation. Two schematic representations illustrate the reaction in both negative and positive serum.

(*Ibidem*, Feb. 9, 1918, 107, No. 6)

RAYNAUD'S DISEASE. GEORGE RUBIN.

Report of a case of the disease, in an unusual location.

(*Ibidem*, March 9, 1918, 107, No. 10)

ECZEMA DUE TO DEFICIENT THYROID SECRETION. (REPORT OF A CASE IN WHICH THE ADMINISTRATION OF THYROID EXTRACT ACTED AS A SPECIFIC.) M. H. EDELMAN, p. 450.

The author's patient was a boy, aged $3\frac{1}{2}$ years, who had had extensive eczema since he was 4 months of age. Various modifications of diet and local treatment had been of no benefit, but the patient improved rapidly under treatment with thyroid extract and was entirely well in three months.

(*Ibidem*, March 16, 1918, 107, No. 11)

WASSERMANN COMPLEMENT FIXATION TEST FOR SYPHILIS. J. WHEELER SMITH, JR., p. 489.

This is the third of a series of articles the author has written on the Wassermann reaction and deals with the preparation and titration of the antigen, preparation of the patient's serum and technic of the test.

MEDICAL RECORD

(March 2, 1918, No. 9)

Abstracted by C. C. TOMLINSON, M.D.

CANCER DEATH RATE IN NEW YORK CITY DURING 1917. L. DUNCAN BULKLEY, p. 362.

Statistics quoted by the author show a marked increase in the mortality rate of cancer, which fact he believes proves that surgical treatment, which has been given first place, is a failure and that we should turn our efforts to the general medical treatment of this disease.

AMERICAN JOURNAL OF SYPHILIS

(January, 1918, 2, No. 1)

Abstracted by C. C. TOMLINSON, M.D.

THE INTRAVENTRICULAR TREATMENT OF PARESIS. NORMAN SHARPE, p. 1.

Owing to the thickened condition of the arachnoid in paretics, subdural injections are prevented from penetrating to the cortex. Dogs injected in this manner with a staining solution showed staining only on the side injected, with no penetration to the depths of the sulci or ventricular system. When injected into the lateral ventricles, staining was produced over the entire cortex of both brain and cord including the ventricular system, and extending to the depths of the sulci and forward to the olfactory bulbs and retrobulbar

spaces of the eye. Following these experiments it was then determined to inject arsphenamin (salvarsan) into the lateral ventricles of paretics and the results of these injections on the first thirteen cases is reported. The amount of arsphenamin (salvarsan) used varied from 0.6 to 1.8 mg., with no unfavorable reaction other than an occasional headache or slight rise in temperature. Three injections were given each patient at intervals of three weeks; this was followed by a rest period of several weeks when further treatment was determined by an examination of the fluid. Two advanced cases were unimproved and died several months after the final injection in the terminal stage of paresis. Two others showed no improvement and nine showed decided improvement, chiefly clinical, five of them being able to return to work following three injections. Fluid findings other than the gold chlorid test became negative. The gold chlorid test always showed a typical paretic curve. The author concludes that this treatment is exceedingly valuable in early cases, but should not be used where deterioration is marked.

SYPHILIS OF THE INNER EAR AND EIGHTH NERVE. GEORGE W. MACKENZIE.

Syphilis of the inner ear and eighth nerve is a far greater cause of deafness than is generally credited. Deafness in children suffering from congenital syphilis is quoted to occur in from 33 to 60 per cent. of cases, and a positive Wassermann reaction has been found in one third of the cases of nerve deafness of unexplained origin. The eighth nerve is less resistant to the poison of syphilis than the other cranial nerves. The trouble is as a rule bilateral. Primary bilateral internal ear or nerve deafness in the absence of a history of basal skull fracture or meningitis is almost invariably due to syphilis. Unilateral syphilis is rarely the cause. The course of labyrinthine syphilis in acquired cases is rapid, complete deafness developing as early as one week following the onset. In the congenital form the course is more gradual. The history and clinical findings are such as to render a diagnosis comparatively easy. Active treatment with arsphenamin (salvarsan), mercury and potassium iodid, commenced before the functions have been destroyed, has the same beneficial effect as on active lesions elsewhere in the body. It is not thought that there is danger of exciting pathologic changes in the optic and acoustic nerves from the arsenic in arsphenamin (salvarsan). The author describes the various diagnostic methods, also the pathologic changes involved.

SYPHILIS OF THE EAR. VIRGINIUS DABNEY, p. 26.

The subject is divided into the acquired and congenital forms and the former subdivided into: (1) cutaneous syphilis of the external ear; (2) syphilis of the eustachian tube and middle ear, and (3) syphilis of the inner ear. Primary syphilis of the external ear is rare, secondary manifestations, however, are not uncommon and the external ear may be the seat of gumma formation. All three stages of the disease may attack the eustachian tube, and it is thought that the tympanum may share in the eruptive phenomena of the secondary stage. Regarding the inner ear, the author is of the opinion that 5 per cent. is a reasonable estimate of aural disturbances in constitutional syphilis. Fifty per cent. of aural disturbances occur during the secondary period. Owing to the frequent association of similar disturbances of other cranial nerves, it is considered probable that the deafness is not due to infection of either the labyrinth or eighth nerve, but to involvement of the nerve in a syphilitic meningitis. In early cases marked improvement in hearing has followed the use of intraspinal treatment. Sudden loss of hearing, generally with tinnitus, with no pain, and no evidence of middle ear disease, in an otherwise healthy young adult, is invariably due to syphilis of the eighth nerve and labyrinth. Shortening of bone conduction is the most

reliable evidence of syphilitic infection. The trouble is usually bilateral. The author agrees with West's division of congenital syphilis into three classes, as follows: (1) Cases showing gross aural disease at birth; (2) cases showing aural disease shortly after birth, and (3) cases showing aural disease at or after adolescence. Diagnostic methods in the last two classes are given. Intensive treatment is urged with recourse to the intraspinal method in cases of keratitis or sudden deafness.

SYPHILIS AND MALIGNANCY. BURTON PETER THOM, p. 40.

A brief review of the literature on the frequent association of malignant disease with syphilis. The author summarizes as follows:

1. Syphilis predisposes to malignant disease.
2. The most malignant forms of syphilis and cancer may exist side by side—the so-called juxtasyphilitic carcinoma or epithelioma.
3. In a syphilitic developing cancer there is almost certain to be a local outbreak of the syphilitic disease in close proximity to the malignant growth.
4. In an individual with cancer who contracts syphilis, the malignant disease is stimulated to increased activity.
5. Leukoplakia occurring in syphilitics, especially if tobacco is used to excess, almost invariably develops into cancer of the mouth or tongue.
6. Epithelioma or carcinoma may develop on a gumma, the two lesions merging, as it were.
7. Syphilis may exactly simulate cancer in any location, either of the viscera or on the surface of the body.

SYPHILITIC AORTITIS. LOUIS A. LEVISON, p. 45.

Two hundred and fifteen cases with syphilis in all stages were studied from a clinical standpoint with a diagnosis of aortitis or allied conditions in twenty-four, or 11.1 per cent. The author's summary follows: Syphilitic disease of the aorta is a much more common affection from the pathologic point of view than from the clinical. Necropsy studies show a much greater incidence of aortitis than clinical findings. The disparity between these findings should lead to an endeavor to bring the clinical findings to a point more closely approximating the pathologic percentage. Syphilitic aortitis should be specifically looked for in every patient who has had syphilis without waiting for symptoms and signs to become prominent. Syphilitic aortitis is present in from 5 to 10 per cent. of all patients having syphilis. It is more common between the ages of 30 to 50. The length of time which intervenes between the beginning of infection and the first appearance of symptoms is very variable; it may be but a few months after the initial infection, or the period may be delayed for twenty or more years. The most important symptoms are pain, dyspnea, palpitation, hoarseness, fever and gastric disorders. The physical findings show variable pictures, depending on the location of the lesion, the extent of involvement, and the implication of the large arteries given off from the aortic arch. The roentgen ray is the most important method of determining the dilatation of the aorta. Physical signs can almost always be determined before the appearance of dilatation. The course of the disease is variable, and may run a prolonged period of inactivity or latency. When symptoms appear, the condition becomes at once more serious. The average duration of life after symptoms appear is from three to five years. The treatment of aortitis is the treatment of syphilis. It is probable that the intensive treatment of the present day will lessen the evidence of aortitis. Great relief may be expected in a systematic way following treatment, but changes in the physical signs or anatomic conditions very rarely occur. Caution should be used in giving large doses of arsphenamin (salvarsan) in the presence of aortitis, on account of the appearance of severe reactions.

CONDYLOMA OF THE UMBILICUS. A. G. RYTINA, p. 64.

A review of the literature on syphilis of the umbilicus with a report of a case of condyloma of the umbilicus, associated with condyloma of the anus. The patient had been wearing a belt around the umbilicus and it is thought the irritant action from the belt was predisposing. Spirochetes were obtained from the lesion. The umbilicus is very rarely involved in a syphilitic process.

MASSES IN THE NECK. ISIDORE COHN, p. 67.

A study of the differential diagnosis of masses in the neck, with a number of case histories and photographs. The author's conclusions are:

1. When a neck mass presents itself, many possibilities must be considered before jumping at conclusions.

2. The clinical laboratory should be utilized early if many of these cases are to be benefited by treatment of any kind.

3. Congenital cysts are to be differentiated from tuberculous glands, in children especially.

4. Carotid body tumors must be considered if a patient presents himself with a painless, nonpulsating, firm mass occupying the course of the carotid artery.

5. A history of the mass having been present for several years is suggestive of a carotid body tumor.

6. Primary neoplasms of lymph glands are most often of the round-celled sarcoma type.

7. Hodgkin's disease is often mistaken for other conditions.

8. The diagnosis is dependent on clinical laboratory findings.

9. Tuberculous cervical adenitis and hyperplastic gland masses due to syphilis are often confused.

10. The removal of a single gland for examination, the Wassermann test, and other laboratory methods will avoid many needless cervical adenectomies.

TATTOOING AND SYPHILIS. ALBERT KEIDEL and E. L. ZIMMERMANN, p. 83.

Regarding the influence of tattooing in syphilitic eruptions the authors report a patient who had been extensively tattooed in 1908. In 1916, the patient developed a chancre and six weeks later an eruption which has remained until the present time. The eruption, which was pinhead to dime-sized, scaly and papular, showed distinct preference for dark colored areas and a striking absence in the areas containing cinnabar pigment. In only one instance was the eruption present in areas containing this pigment. The patient was given one injection of diarsenol after which he failed to return, thus rendering further study impossible. Theorizing on the influence of tattooing, the author remarks that, "Puncturation of the skin of a syphilitic, by causing cell death, produces favorable cultural conditions for the *Spirochaeta pallida*, and by interference with skin metabolism alters the nutrition of the cells. One tends to increase the virulence of the infection, the other tends to lower the resistance of the cells opposed to it. The deposition of the pigment acting as a foreign body also diminishes cell resistance. These local influences so favor the spirochetes at the expense of the tissues that the protective property of a pigment like cinnabar, is incapable of successfully opposing the invader."

SKELETAL RADIOGRAPHY AS AN AID TO THE DIAGNOSIS OF OBSCURE SYPHILIS. WILLIAM PEARCE COUES, p. 97.

Emphasis is placed on the importance of radiography in the diagnosis of obscure syphilis. Definite radiographic findings, proved specific by patho-

logic examination of tissue and the therapeutic test, are not always supported by a positive Wassermann reaction. In fact, the author has found a greater percentage associated with a negative Wassermann reaction. A number of roentgenograms, showing changes due to syphilis, accompany the article.

THE BLOOD AND CEREBROSPINAL FLUID IN THREE HUNDRED KNOWN CASES OF SYPHILIS. CHARLES CLAYTON DENNIE and D. O. SMITH, p. 101.

A study of the blood and cerebrospinal fluid in 300 cases of syphilis, 100 of which were early and 200 late syphilis. The authors' conclusions are as follows:

1. In primary syphilis, the cerebrospinal fluid was entirely negative in 80 per cent. of the cases and, of the remaining 20 per cent., the findings were very mild.

2. In secondary syphilis, the cerebrospinal fluid was entirely negative in 45 per cent.; 35 per cent. had mild reactions, and 20 per cent. marked findings.

3. In late secondary syphilis, the blood Wassermann tests were 100 per cent. positive; 60 per cent. gave undoubted evidence of meningeal involvement as the cerebrospinal fluid in these cases was markedly positive throughout; 33 per cent. had moderate findings in the cerebrospinal fluids; and only 7 per cent. had entirely negative cerebrospinal fluids.

4. Patients receiving early treatment for syphilis should have an examination of the cerebrospinal fluid before the treatment is finished, as 50 per cent. of the series reported here had positive findings in the cerebrospinal fluid without signs or symptoms of central nervous system involvement.

5. Cerebrospinal meningitis (syphilitic, acute) had the same findings in the cerebrospinal fluid, even to the paretic curve with the gold solution, as paresis.

6. Gummas of the penis did not have marked findings in the cerebrospinal fluid, but the confirmatory type.

7. The phagedenic ulcers reported here were evidently due to late syphilis.

8. Old syphilis without symptoms, treated and untreated, have almost the same findings in the blood and cerebrospinal fluid. One-third show confirmatory evidence of syphilis in the cerebrospinal fluid.

9. Syphilis of the tongue, stomach and liver did not show any evidence of syphilis in the cerebrospinal fluid.

10. The larger percentage of syphilis of the bones and joints shows confirmatory evidence of syphilis in the cerebrospinal fluid.

11. Fifty per cent. of the patients who had syphilis of the skin (old) showed marked evidence of syphilis in the cerebrospinal fluid. This report is decidedly against the old teaching.

12. Raynaud's disease should always be investigated for old syphilis.

13. Congenital syphilis did not show many positive cerebrospinal fluids.

14. Syphilis of the arteries (aortitis, aneurysm) all showed positive cerebrospinal fluids.

15. Patients with optic atrophy all had positive cerebrospinal fluids (evidence of a meningeal involvement).

16. Brain syphilis of the vascular type had mild findings in the cerebrospinal fluid. The chronic basilar meningitic type had marked findings in the cerebrospinal fluid.

17. In cerebrospinal meningitis (old) without signs, 64 per cent. had marked findings in the cerebrospinal fluid, and 28 mild findings; the rest were negative.

18. In paresis all the findings were marked.

19. Transverse myelitis, multiple sclerosis, and progressive muscular atrophy should always be investigated for syphilis.

20. *Tabes dorsalis* was divided into five groups: (1) Marked findings in both blood and cerebrospinal fluid; (2) positive blood and mild findings in the fluid; (3) positive blood and negative spinal fluid; (4) negative blood and positive spinal fluid, and (5) those showing the parietic curve.

21. The intensity of the serologic findings is an index to the activity of the syphilis.

22. The so-called parietic curve may occur in any gold chlorid test, no matter what type of activity, if the process is very active.

THE TECHNIC OF THE BORDET-WASSERMANN REACTION. A CONSIDERATION OF THE PROBLEM INVOLVED IN ITS STANDARDIZATION. H. K. DETWEILER, p. 120.

This article is the report of a careful study in which the author has reviewed the problems involved in the standardization of the Wassermann reaction. The different components of the hemolytic system are taken up separately, giving the report of other workers with a discussion of their merits. Chief among the author's deductions are the following: Cholesterinized antigen gives the most delicate test and the incubation is carried on in an air thermostat. When alcoholic antigen is used, icebox incubation is a decided advantage. Double the amount of serum in the serum control tube is an additional factor of safety. Natural antisheep amboceptor in serums does not yield false results when not less than 0.1 c.c. of serum is used.

SYPHILIS AND THE WAR. H. H. HAZEN, p. 144.

It is a recognized fact that syphilis increases during war and the five-year period following it. It is therefore important that the necessary steps be taken to protect society at large. Measures provided by various nations to prevent the spread of the disease are reviewed, with comments. In the United States no systematic attempt has been made to decrease the amount of syphilis in either the army or navy, and as a result we stand highest in percentage of syphilis. We must have national control if the desired results are to be accomplished in protecting the civil population.

EFFECT OF VENEREAL DISEASES ON INFANT MORTALITY. FREDERICK H. BARTLETT, p. 156.

It is impossible to get accurate statistics of the effect of syphilis on infant mortality. If stillbirths and miscarriages are included in an estimate of the incidence of congenital syphilis, the number of actual cases are much larger. Stillbirths have been classed as due to syphilis in as high as 50 per cent. of cases. Various statistics are given in this article showing the effects of syphilis on infant mortality and the economic loss through this disease. "An examination of the wastage of life in hereditary syphilis and of the following birth rate in Paris can lead to but one conclusion, that syphilis is a national peril."

ADEQUATE TREATMENT FOR SYPHILIS. H. G. IRVINE, p. 167.

The author states that for several weeks the rate of venereal disease in the draft army has been several times that of the regular army, thus showing the need for more supervision and better treatment among the civilian population. Especially to be condemned is the practice of those engaged in special lines to treat a patient until lesions of various special organs are cleared and then allow the patient to pass from observation. Ideal treatment must be individualized and no general rules can be made further than that the treatment should be carried on intensively with arsphenamin (salvarsan) and mercury. A cure should not be pronounced until after an observation period of two years, during which time numerous blood Wassermann tests and finally a cerebrospinal fluid Wassermann test should be made.

THE TREATMENT OF EARLY SYPHILIS IN RELATION TO DEVELOPMENT OF NEUROSYPHILIS. LAWSON GENTRY LOWRY, p. 138.

Syphilis cases are reported in which the time of infection was known, and in which all of the patients had fairly intensive treatment at the time of infection, but all developed paresis. Intensive treatment resulted in improvement in each of the cases reported. The author deduces the conclusion that early treatment is not a guarantee against syphilis. All cases of syphilis should be punctured early. If intensive treatment will improve a parietic, the same type of treatment given early should go far toward preventing its development.

THE SYPHILIS CLINIC OF EMORY UNIVERSITY. W. B. EMERY, p. 142.

A brief outline of the methods of handling syphilis in vogue at this clinic.

UROLOGIC AND CUTANEOUS REVIEW

(February, 1918, 22, No. 2)

Abstracted by OSCAR L. LEVIN, M.D.

ROENTGEN THERAPY IN EPITHELIOMA. ALBERT F. TYLER, p. 65.

The writer asserts that all epitheliomas without lymphatic involvement should be treated with the roentgen rays. He states that this method of treatment is preferable because it is painless, because it does not interfere with the patient's occupation, and because the ultimate results are as good or better than any other method of treatment. In cases in which the growth has been excised the rays should be employed subsequent to the operation.

THE TREATMENT OF ACNE BY THE ROENTGEN RAY: TREATMENT OF EPITHELIOMA OF THE LOWER LIP BY RADIUM. RUSSEL H. BOGGS, p. 68.

It is claimed that the roentgen ray in the hands of the experienced, when applied in the treatment of acne, is not dangerous and will cure nearly every case of the most severe type.

A case is also reported in which an inoperable epithelioma of the lower lip was cured by radium.

TREATMENT OF MALIGNANT SKIN LESIONS WITH THE ROENTGEN RAY. FREDERICK B. HALL, p. 85.

Accompanying this article there are several excellent photographs showing the curative effects of the rays on epitheliomas and sarcomas of the skin. The writer states that roentgen rays and, to a lesser extent, radium have superseded all methods of treatment with the exception of excision for these conditions. He recommends the roentgen rays as a postoperative measure when excision has been performed.

RADIUM TREATMENT IN DISEASES OF THE SKIN. W. KNOWSLEY SIBLEY, p. 90.

A short description is given of the alpha, beta and gamma radiations from radium, the action of these radiations, the manner of application and technic for the employment of radium. Among the skin diseases which are now satisfactorily treated are: nevus, angioma, lymphangioma, rodent ulcer and

other varieties of skin cancer, Paget's disease, eczema, psoriasis, lupus vulgaris, lupus erythematosus, pruritus, roentgen-ray dermatitis, leukoplakia, keloids, scars, lichen planus, etc. The best results are obtained in rodent ulcer, nevi and keloids, in all of which the lesions have been satisfactorily removed without any obvious scarring being left to mark the site of the original disease.

(*Ibidem*, March, 1918, 22, No. 3)

DERMATOLOGY AND INTERNAL MEDICINE. WALTER JAMES HEIMANN, p. 125.

Heimann states that the real problem in dermatology is not to label a skin disease, but to discover all the conditions that may produce a certain picture, and then determine in a given instance the responsible one. Without ability to do this, therapy, the object of all medicine, will remain empirical. Disturbed nitrogen and sugar metabolism, endocrinous gland and alimentary diseases, focal infection and food sensitization bear apparently some relation to the etiology of certain cutaneous diseases. Although certain diseases seem to be caused by definite general disturbances, like psoriasis from faulty nitrogen metabolism, seborrhea from carbohydrate fermentation and urticaria from food sensitization, yet there may be other factors operative in producing these conditions. It is emphasized that the attempt should be made to classify the causes underlying the processes, rather than complacently to classify the effects.

SYPHILIS. THOMAS M. PAUL, p. 137.

A description of the author's procedure in the treatment of syphilis.

If spirochetes are not found in the secretions of a suspected initial lesion, an intravenous injection of arsphenamin (salvarsan), 0.6 gm., is given as a therapeutic test. A partial or complete healing of the lesion warrants the further administration of antisyphilitic remedies.

BOSTON MEDICAL AND SURGICAL JOURNAL

(Dec. 20, 1917, 177, No. 25)

Abstracted by OSCAR L. LEVIN, M.D.

ANTHRAX AS AN OCCUPATIONAL DISEASE IN MASSACHUSETTS. THOMAS F. HARRINGTON, p. 867.

Corresponding with the increase in import of hides, skins, wool and other animal products that formerly went to Europe, there has been an increase in the occurrence of anthrax. In Massachusetts there has been an increase in the number of cases of human anthrax from four in 1914 to twenty-seven during 1915-1916 and forty-six in 1917 prior to November 1.

ROENTGEN-RAY THERAPY IN TINEA TONSURANS. ARTHUR R. PILLSBURY, p. 880.

Excellent results were obtained in twenty cases of ringworm of the scalp by the fractional dose method of treatment. No appreciable epilation was observed but, on the contrary, the hairs became more firmly rooted and approached the normal. It was also observed that the number of spores in the hairs lessened with each treatment.

Book Review

NEUROSYPHILIS. By E. E. SOUTHARD, M.D., and H. C. SOLOMON, M.D.
496 pages. Introduction by James J. Putnam. *William Leonard,*
Boston, 1917.

There are several matters to be considered in reviewing a medical work. Of these the most important is whether the book has fulfilled its pretensions. Undoubtedly that of Southard and Solomon in the main has. The volume is one of a series devoted to case reports, and without doubt the cases reported in neurosyphilis have been wisely and thoughtfully selected from a rich and extensive material. The judgment displayed, the points covered, the simplicity of the exposition, the comprehensiveness with which variations in the disease and its treatment have been presented, are all commendable. Insofar as an assembly of case reports is valuable, this book is remarkable.

One may be justified, however, in speculating on the value of an uncorrelated collection of clinical protocols. This must have been sensed by the authors, for to a certain extent they have attempted to produce a synthesis by the use of captions and by a very ingenious key coordinating the individual elements. The attempt has been only partly successful, for only relative instead of total order has been procured from the chaos inevitable in stringing together anecdotes.

It is clearer and more forceful to state deductions and illustrate by example rather than to expect the unrelated text of numerous parables properly and automatically to arrange themselves. The book, the authors state, has been especially designed for the needs of general practitioners. It is especially this class of physicians, however, that demands the clearest, simplest and briefest presentation of matter, for they are too busy to do their own classifying and deduction.

There are few case reports in the volume that are not from two to four times longer than necessary. Case 54, chosen at random, will illustrate. The report covers two and one-half pages. It begins, "Julius Kantor was a shoemaker of 35 years who came to the hospital for treatment because his family physician had found a positive WR. in Kantor's blood serum." This sentence contains twenty-eight words. It might have read, "Julius Kantor, a 35 year old cobbler, entered the hospital because his blood showed the presence of syphilis." This sentence contains eighteen words. The rest of the paragraph stated redundantly that Kantor had evidences of tuberculosis and had had a chancre nine years before; about eighty words are required to express what was conveyed above in a sentence. For instance, it is stated, "The enterprising family physician had found the positive WR. in the first days of his treatment for tuberculosis." This genial and diffuse style suggests the early Victorian period in English letters when authors were remunerated for their prolixity. Nor is it flattering to the physicians of Massachusetts to have one singled out as astute for accomplishing what is to be expected of any practitioner if he deserves his license.

The gist of the work, when one has succeeded in freeing it from its obscuring elements, is excellent. The authors approach their subject as syphilographers as well as neurologists and alienists—indeed, a rare combination. This should commend the book to those of us who have become weary of the narrow and academic jealousy with which neurologists have viewed as unwarranted invaders those who have tried to illuminate an obscure passage in medicine. Nothing that has been offered in the field of neurology by syphilographers

has been welcomed by the hereditary aristocrats, and it is wholesome and gratifying to see how the authors have employed everything that would further a sound understanding of neurosyphilis.

They are not among those who flout subdural therapy. Neither are they extravagant in its praise. On the other hand, they are not partisans to any other therapy. They have been remarkably successful in their treatment and one is convinced that this is the result of carefully adopting therapeutic management to individual needs. Their deep knowledge of the indications is due in turn to a strong foundation of pathology. Thus the essentials of the work compel unqualified approval.

One may be pardoned for preferring a worthy gem in a worthy setting. The appearance of the book is rather tawdry and the illustrations are cheap. The quotations from "Paradise Lost" strike a discordant note. This, of course, is a matter of taste, but it seems artificial and sophomoric to resort to poetry in a work of this sort in order to emphasize the dramatic features of the disease. This objection rests on things that are felt and cannot be proved, but it is a critic's privilege, and must be forgiven as such, to indicate what appear as imperfections in a book.

Another flaw is the dedication, "To Massachusetts, a state that both tolerates and fosters research." This inscription might as well have been addressed to the United States or to the world. It would have been as true in each instance. In fact, it gives an impression that the authors could scarcely have cared to convey, namely, that the noble old commonwealth had at last aroused itself to the value of something that elsewhere has long been accepted both as an essential and as a commonplace. It is a century and a half since the Boston Tea Party and since then much has happened in our country, including progress in medical research, of which we may be proud. There is a certain pathos, perhaps, in the confession that Massachusetts has so late come abreast of the rest of the country.

W. J. H.

Necrologic

MEYER L. HEIDINGSFELD, M.D.

It is with profound sorrow that we inform our readers of the death of DR. MEYER L. HEIDINGSFELD, of Cincinnati, who expired in the Jewish Hospital in that city, on Sept. 3, 1918, as a direct result of a splenic abscess which was a sequel to a severe attack of typhoid fever.

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Original Communications

PEMPHIGUS: A CLINICAL STUDY

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The present paper pretends nothing beyond a report of thirty cases of pemphigus treated in the wards of Mt. Sinai Hospital during the past five years (Table 1). No special investigations have been made directed toward a solution of this unfortunate dermatologic enigma, but the clinical facts to be reported have been correlated in the hope that we, or some of our readers, may pick up a clue to future enlightenment. We shall not review what has so often and so well been described, the lesions themselves, but shall devote our space to aspects of the disease, on the whole neglected in the literature. Neither shall we epitomize the literature, for the essence thereof is merely a confession of ignorance and a monument to futile effort.

CLASSIFICATIONS OF PEMPHIGUS

The conventional classification includes benign and malignant pemphigus, and acute and chronic varieties of the former, indeed perhaps of both. Furthermore, in both groups are pemphigus vulgaris, foliaceus and vegetans as well as combinations of these. The last statement is not generally accepted as a fact, the three types being considered distinct. As will be shown, however, this assumption is inaccurate. It is the result of overrefinement that so many distinctions have crept into use, for actually it must be known to any one con-

* Read before the Section on Dermatology, American Medical Association, Chicago, June 14, 1918.

TABLE 1.—CLINICAL STUDY OF THIRTY CASES OF PEMPHIGUS TREATED—

Case	Sex	Age	Nativity	Type	Initial Lesion	Duration on Admission	Temperature, F.	Clinical Course	
								Lesions	Result: Died in
1	F	65	American	Vulgaris	Mouth	6 weeks	100-102	Blebs on body	2 weeks
2	M	56	Russian	Vulgaris	Scalp	16 months	Normal	Blebs on body, scalp, conjunctivae, mouth	7 weeks
3	F	40	Russian	Vulgaris	Mouth	4 months	103	Body and mouth	2 months
4	M	65	Italian	Vulgaris	Body	3 weeks	Normal	Body	9 days
5	F	32	Russian	Vulgaris and vegetans	Face	4½ months	101-102	Axillae, groin, scalp, mouth	16 days
6	F	68	Russian	Vegetans	Scalp	3 months	Normal	Skin, mouth	19 days
7	F	51	Austrian	Vulgaris	Abdomen	7 weeks	Slight fever	Body	3 months
8	M	49	Russian	Vulgaris	Nose and mouth	1 year	None	Body	3 months
9	F	48	Roumanian	Vulgaris	Body	2 weeks	104	Body, mouth	6 months
10	F	52	Austrian	Vulgaris	Mouth	3 months	Normal	Body, lips, tongue, groin, pharynx	2 months
11	M	21	Russian	Vulgaris	Mouth	5 weeks	Slight	Body, mouth, nose	3 months
12	M	22	German	Vulgaris	Mouth	4 months	Normal	Body, mouth	5 months
13	F	53	American	Vulgaris and vegetans	Mouth alone	4 months	Normal	Body, mouth; lost 56 pounds in 3 months	3 months
14	M	62	Russian	Vulgaris	Face	2 months	Normal	Body	7 weeks
15	M	73	Russian	Vulgaris	Mouth	6 weeks	Normal	Admitted for cancer; esoph. had pemphigus; tongue, pharynx, larynx, conjunctivae. Readmitted 5 months later	8 months
16	F	25	Russian	Vulgaris	Mouth	3 months	Normal	Mouth, skin, conjunctivae,	5 months
17	M	52	Austrian	Vulgaris	Mouth, throat	3 months	Slight rise	Mouth, skin	3 weeks, 1 day after transfer
18	F	62	Russian	Vulgaris	Mouth	4 weeks	Normal	Mouth, skin	1 year, suicide
19	F	52	Hungarian	Foliaeous	Scalp, chest, abdomen	1 year	99-101	Nikolsky blebs; scales body	6 months
20	F	42	Russian	Vulgaris and foliaeous	Chest	5 months	101-103	Blebs mouth, foliaeous body	2¼ years, still alive
21	F	63	Austrian	Vulgaris	Mouth	10 weeks	.....	Body, mouth	17 weeks
22	M	62	Russian	Vulgaris	Mouth	5 weeks	99-100	Body and mouth	2 weeks
23	M	40	Russian	Vegetans, foliaeous	Groins, axillae	11 weeks	100-102	Axillae, groins	5 days
24	F	43	Russian	Vulgaris	Mouth	8 weeks	99-101	Mouth, 8 weeks; body, 2 weeks	5 days
25	M	30	Austrian	Vulgaris	Mouth	5 months	Normal	Mouth, skin	2½ months
26	M	21	Austrian	Vulgaris, vegetans	Mouth	3 months	Normal	Body, mouth, axillae	17 days
27	F	25	American	Vulgaris, vegetans	Mouth	6 months	99-101	Mouth, 6 months; groins, umbilicus, 5 weeks	10 weeks
28	F	48	American	Vulgaris	Mouth	7 weeks	Normal	7 weeks; mouth after 3 weeks, later on body	3½ months
29	F	50	Roumanian	Vulgaris	Mouth	2 months	Normal	Began with dysphagia. mouth, body	Still alive
30	M	41	Hungarian	Vulgaris	Chest	3 months	Normal	Improved on adrenalin, although when admitted appeared in extremis; 7 weeks in hospital	7 weeks, died suddenly

—DURING THE PAST FIVE YEARS AT MT. SINAI HOSPITAL, NEW YORK

Clinical Course	Pathologic Findings		Therapy
	Blood	Special	
8 weeks	Normal	None	One arsphenamin (salvarsan) injection.
18 months	W.B.C., 16,000; poly., 79%; lymph., 19%; eos., 2%	None	Three arsphenamin (salvarsan) injections.
6 months	W.B.C., 13,900; poly., 79%; lymph., 19%; eos., 2%	None	Three arsphenamin (salvarsan) injections.
1 month	None	None	Two quinin infusions; intravenous
5 months	W.B.C., 16,000; poly., 65%; lymph., 32%; eos., 3%	None	Nine quinin infusions; intravenous
3½ months	None	None	Four quinin infusions; intravenous
5 months	W.B.C., 8,100; poly., 82% lymph., 18%; with fever 48,000	None	Three autoserum; 10 quinin; 3 neoarsphenamin (neo-salvarsan) injections.
1¼ years	None	None	Ten quinin injections
6½ months	Poly., 62%; lymph., 25%; eos., 12%	None	Arsenic, 3 neoarsphenamin (neosalvarsan), 2 quinin injections
5 months	W.B.C., 15,000; poly., 60%; lymph., 39%; eos., —	None	Two emetin injections
4 months	W.B.C., 8,200; poly., 68%; lymph., 30%; eos., 2%	None	Two arsenobenzol; autoserum, staphylococcus vaccine, 20-200 million; roentgen rays. Temporary improvement with autoserum
9 months	W.B.C., 13,000; poly., 70%; eos., 30%	None	Quinin, roentgen rays, autoserum, emetin. Improvement with all, always relapse
7 months	W.B.C., 8,000; poly., 60%; lymph., 30%; eos., 10%	None	Emetin, arsenic, colon irrigations, lipoids by mouth
3½ months	Normal	Blood culture negative; abscess left axilla; Strep. hemolyticus; Temp. 101-104	Twelve quinin infusions
9½ months	W.B.C., 10,800; poly., 70%; lymph., 30%	None	Four arsphenamin (salvarsan) injections improved mouth lesions. On readmission emaciated; 5 arsphenamin (salvarsan) and autoserum injections without benefit. Transfusion, Unger method, better, relapse
8 months	W.B.C., 10,000; poly., 68%; lymph., 30%; eos., 2%	None	Autoserum, arsphenamin (salvarsan), improved under quinin. Worse after fourth injection
4 months	W.B.C., 8,000; poly., 65%; lymph., 32%; eos., 3%	None	Quinin infusions and blood transfusion 400 c.c., Unger
13 months	W.B.C., 12,000; poly., 56%; lymph., 42%; eos., 2%	None	Six arsphenamin (salvarsan) injections; mouth improved; recurrence body; 3 more salvarsan without benefit
18 months at another hospital	W.B.C., 11,000; poly., 68%; lymph., 30%; eos., 2%	None	Quinin infusions and Fowler's solution
Still alive	Normal	Feces normal	Remissions and relapses. Adrenalin, morphin, colon irrigations, etc.; emaciated; now on Dr. Whitehouse's service, Skin and Cancer Hospital
5 months	W.B.C., 8,000; poly., 37%; lymph., 31%; eos., 32%	Stool, colon bacillus; acute parenchymatous nephritis; ulcer duodenum at necropsy	Colon irrigations; autogenous vaccines, colon bacillus 50-800 million
1¾ months	None	None	Codein
12 weeks	W.B.C., 14,000; poly., 80%; lymph., 20%	Wassermann negative	Codein
9 weeks	None	None	Codein
7½ months	W.B.C., 21,000; poly., 65%; lymph., 26%; eos., 9%	None	Three intravenous injections gelatin (Epstein); severe immediate reactions; died 2½ months; temperature 104; edema of esophagus and face
3½ months	W.B.C., 13,600; poly., 84%; lymph., 14%; eos., 2%	None	Cacodylate
8 months	W.B.C., 21,500; poly., 71%; lymph., 29%	None	Three arsenohenzol, 2 typhoid vaccines intravenously, 8 autoserum. Temperature to 104 after vaccines
5 months	W.B.C., 13,200; poly., 67%; lymph., 32%; eos., 1%	Necropsy, enlarged suprarenals, liver, spleen small	Four intravenous injections of 1 per cent. proteose 1¼ to 2 cm. Arsenic no effect.
.....	W.B.C., 12,000; poly., 63%; lymph., 37%	None	Three arsenohenzol
5 months	W.B.C., 15,000; poly., 64%; lymph., 32%; eos., 1%	None	Three arsenobenzol; suprarenal extract, 15 minims injected hypodermically t. i. d.

versant with the facts through wide experience that the types are often mixed, or go over one from the other most capriciously. Neither is the prognosis in one type better or worse than in another. Actually, pemphigus foliaceus is the result only of large flaccid epidermolytic blebs rather than that of smaller bullae. Pemphigus vegetans is the result of maceration and proliferation of lesions in body folds in a manner analogous to what takes place in syphilis when flat condylomas form. No justification exists for artificial distinctions based on type pathologic responses to generic influences. Such reasoning always serves to complicate and confuse rather than to clarify.

TABLE 2.—FREQUENCY OF THE OCCURRENCE OF THE TYPES OF PEMPHIGUS

Types	Sex			Initial Lesion						
	M.	F.	Total	Mouth	Mouth, Nose, Throat	Scalp	Face	Body	Axillae, Groins	Total
<i>P. vulgaris</i>	11	11	22	14	2	1	1	4	..	22
<i>P. vulgaris</i> with folia- ceus.....	0	1	1	..	..	..	..	1	..	1
<i>P. vulg.</i> with vegetans	1	3	4	2	..	..	2	..	..	4
<i>P. foliaceus</i>	0	1	1	..	..	..	..	1	..	1
<i>P. vegetans</i>	0	1	1	..	..	..	1	..	..	1
<i>P. folia.</i> with vegetans	1	0	1	..	..	..	..	..	1	1
Totals.....	13	17	30	16	2	1	4	6	1	30

PEMPHIGUS IS A CLINICAL ENTITY HAVING VARIOUS PHASES

It is submitted, then, that so far as can be ascertained at all, pemphigus in all of its phases is one disease. All may go over into one another or coexist. All of them inevitably are fatal, and in this respect the disease differs from others, the lesions of which simulate it. The imitators are dermatitis herpetiformis, erythema bullosum, urticaria bullosa, vaccinia and their subvarieties. Suffice it to say that none of these are fatal save the bullous dermatitis described by Engman and Mook which follows vaccination and which in its behavior suggests and may throw some light on pemphigus. Of impetigo herpetiformis and herpes gestationis, regarded as variants of Dühring's disease, the same may be stated.

THE MOST COMMON TYPE OF PEMPHIGUS

A perusal of Table 2 reveals that the bullous form, known as pemphigus vulgaris, is the commonest variety. Of thirty cases, twenty-two were of this type, while pemphigus vulgaris was associated with foliaceous lesions but once, and vegetating lesions four times. Foliaceous and vegetating pemphigus, in their pure forms, occurred once each and were associated once. Thirteen males and seventeen females were afflicted. It is striking that eleven of each sex had pure pemphigus vulgaris, while of the rarer forms six were in women and

only two in men. Only adults presented the disease, six in the third, three in the fourth, seven in the fifth, six in the sixth, seven in the seventh and one in the eighth decade. Excepting one Italian, all of the patients were Hebrews from southern Europe or whose ancestors came thence. Fourteen were born in Russia, six in Austria, four in the United States, two each in Roumania and Hungary and only one in Germany.

TRAUMA AS A PREDISPOSING ETIOLOGIC FACTOR

The onset of the lesions (Table 2) was prevailingly on buccal mucous surfaces. In sixteen instances the mouth was first involved, in two the mouth and throat, in one the scalp, in four the face and in seven the body. Thus twenty-three cases began on areas of the body exposed to trauma, that is, the nasopharynx, head and face. Whether this is significant or not only time will disclose. In this connection it is not out of place to mention a lawsuit following a death from pemphigus which developed after dental manipulation. One patient (Case 28) acquired the disease after tooth extraction. The dentist is being sued and the case will shortly come to trial, the patient's family deposing that he was responsible for her death. This is an example of the *post hoc ergo propter hoc* fallacy. Unquestionably, the sequence of events was a coincidence, but it is peculiar to the human mind, as pointed out by Bacon, to dwell on affirmative and neglect negative evidence. In two patients the conjunctiva was involved, albeit not with the initial lesion. A case seen at the Post-Graduate Hospital, and not included in this series, began with the picture of essential shrinkage of the conjunctiva and several years later presented the classic picture of pemphigus vulgaris.

HIGH MORTALITY OF PEMPHIGUS

Save for three patients, one of whom committed suicide and two of whom are now under observation, all died. Of these two, one patient (Case 29) has been ill only two months, while the other (Case 20) has had pemphigus foliaceus and vulgaris for two and one-half years. She is under Dr. Whitehouse's care having at first been treated by one of us (Highman). Of the twenty-seven fatal cases (Tables 3 and 4), seventeen died within six months, seven more between seven and ten months and three between the eleventh and eighteenth month. Death results mainly from cachexia, occasionally from pulmonary edema and never from any direct manifestation that might explain the disease. From these facts it appears fair to assert that pemphigus is invariably, and in all of its forms, fatal. It may

further be permissible to dogmatize to the extent of stating as a corollary that that which appears to be pemphigus and is not fatal is not actually pemphigus. This view is offered in full cognizance of allegations to the contrary in the literature.*

TABLE 3.—DURATION OF LIFE IN TWENTY-SEVEN PATIENTS WHO HAD PEMPHIGUS

Months	Died	Still Living	Suleides	Total
1	1	1 patient		
2	3			
3	2			
4	5			
5	5			
6	1			
7	2			
8	2			
9	1			
10	2	1 patient (Case 20)	1	
12				
15	1			
18	2			
27				
Total	27	2	1	30

TABLE 4.—SUMMARY OF THE DURATION OF LIFE IN THE CASES UNDER OBSERVATION

Months	Cases	Months	Cases
1 - 3.....	6	1 - 6	17
4 - 6.....	11		
7 - 9.....	5		
10 - 12.....	2	7 - 10	7
13 - 15.....	1	11 - 18	3
16 - 18.....	2		
Totals.....	27		27

FEVER AND LEUKOCYTE COUNT IN PEMPHIGUS

Other interesting features of the disease are found in observations on the temperature and leukocyte count. The temperature was not recorded in two cases. In the other twenty-eight (Table 5), there was no fever in fifteen cases, and a slight rise in five, while in five more it ranged from 101 to 103 F., and in three from 103 to 104. In one patient in the last group the temperature was normal until abscesses appeared in the axilla and returned to normal after these had been evacuated. Thus, in twenty-three of twenty-eight cases it may fairly be stated that there was no fever. When fever is present it is irregular, rises sometimes in the afternoon and sometimes in the forenoon, often appears when the rash is at its lowest ebb and vanishes with the bullous relapses. Thus pemphigus is in the main an afebrile or only slightly febrile disease.

* Since this paper was read all the patients have died.

TABLE 5.—TEMPERATURE RECORD IN THIRTY CASES OF PEMPHIGUS

Temperature	Number of Cases
Not recorded	2
Normal	15
Slight rise	5
101 to 102 F.	5
103 to 104 F.	3
Totals	30

LEUKOCYTOSIS OBSERVED IN THE SERIES OF CASES

The blood picture is also inconsistent. Examinations were made in twenty-four cases (Table 6). The leukocytosis exceeded 16,000 in only four cases; in eleven, it ranged between 11,000 and 15,000; in six, between 8,000 and 10,000. In three cases there was no leukocytosis, if the normal count be considered between 7,500 and 7,800. In only one instance was there a polymorphonuclear leukocytosis

TABLE 6.—RESULTS OF LEUKOCYTE COUNT IN THIRTY CASES OF PEMPHIGUS

Count	Number of Cases
Not made	6
Normal	3
8,000 to 10,000	6
11,000 to 15,000	11
16,000 to 20,000	2
21,000 to 30,000	2
31,000 to 50,000	1 with abscesses
Totals	30 previously normal

above 70 per cent., and in only four an eosinophilia. In Case 9 (pemphigus vulgaris) there were 12 per cent. of eosinophils; in Case 13 (pemphigus vulgaris and vegetans), 10 per cent.; in Case 21 (pemphigus vulgaris), 32 per cent., and in Case 25 (pemphigus vulgaris), 9 per cent. Thus pemphigus tends to produce a moderate leukocytosis and in about one-third of the cases a polymorphonuclear increase. The eosinophilia appears to have no distinctive bearing on the condition. The erythrocyte count indicated the secondary anemia found in nearly all severe and wasting diseases.

OTHER CLINICAL OBSERVATIONS

Except in Case 21 in which there was nephritis, confirmed at necropsy, the urine was normal. In Case 14 a blood culture was made which proved negative. Such fecal examinations as were made and the one Wassermann test performed (in Case 23, pemphigus vegetans with lesions resembling flat condylomas) were negative. In Cases 21 and 28 necropsies were performed. The former presented a duodenal ulcer and parenchymatous nephritis; the latter enlarged suprarenal glands and liver and a small spleen. Necropsies are prevailingly negative in this disease, and it is particularly striking that this should be

so as regards the intestine. Since the disease so often begins in the upper part of the alimentary tract one necessarily expects involvement elsewhere therein.

TREATMENT

Therapeutically everything was attempted. Arsenic, arsphenamin (salvarsan), lipoids, proteose, vaccines, autoserum and quinin (Table 1) were employed, chiefly intravenously. Blood transfusions were made. All were without avail. The disease followed its capricious course, improving or getting worse, in no relation whatever to the treatment. Locally, roentgen rays; the Alpine lamp and all conventional remedies were employed with the same result. The patients finally died. Recently, based on Samberger's views, adrenalin was employed in Case 30. The patient seemed to be *in extremis* when admitted to the hospital and was nearly free from lesions after two weeks of this treatment when he suddenly died. Optimism based on transitory clinical improvement invariably receives this sort of shock. In Case 20 morphin and codein were at first used heroically on the assumption that if catabolism were suspended, the metabolic balance might swing in the patient's favor. She was clear of lesions in three weeks, attempted to sit up in a chair and the next day was covered with blebs; in three days more she again presented the classic and tragic picture of pemphigus foliaceus. Under Dr. Whitehouse's care she still lives, after two and one-half years of illness. She is emaciated and, although at times free of lesions, is nothing but an animated corpse. (See footnote.)

COMMENT

Pemphigus, then, is a disease occurring at all periods after adolescence, but chiefly between the ages of 40 and 70 (twenty cases out of the thirty in this series). It has nothing to do with pemphigus neonatorum, a confusing term sometimes applied to infantile impetigo contagiosa and sometimes to congenital syphilis. It seems to be slightly more frequent in women than in men, particularly in its rare forms. On the whole, it would appear that Hebrews are peculiarly vulnerable, and chiefly those who were born in, or whose immediate ancestors came from southern Europe. This may be erroneous since the majority of the patients at Mt. Sinai Hospital are of this origin, and pemphigus is certainly known in all lands. On the other hand, the impression conveyed in the foregoing is generally accepted, and racial predisposition to, or immunity against certain diseases is by no means rare. Trachoma and diabetes in Jews, keloid in negroes and goiter in the Swiss will serve as examples.

PEMPHIGUS IN ALL ITS FORMS BUT ONE DISEASE

The subdivision of pemphigus into its classical varieties and sub-varieties is unphilosophical. There is no benign pemphigus. All those affected die. In 88 per cent. of the cases (Table 4) death occurs within ten, and in 60 per cent. within six months. Adjectives are relative, and, although the fatal end may be delayed, it is invariable; so that the term benign, as used merely in the sense of postponed death, is simply a cynical tribute to the inevitable. Neither is it sound to interdifferentiate pemphigus vulgaris, foliaceus and vegetans, as the last two are more frequently associated with the first than seen alone. There is thus no evasion of the probability that pemphigus in all its forms is one disease, the varieties representing but those excursions in aspect seen in many maladies. The constant factor is the mortality.

SUGGESTIONS AS TO THE ETIOLOGY BASED ON AUTHORS' CASES

No deductions can be made and very few inferences can be drawn from the foregoing as to the causes of the disease. The initial lesion appeared in the mouth in 60 per cent. of the cases and in 10 per cent. more on the head. Often an appreciable period is noted between the development of the first lesion and that of the general eruption. In Case 24 eight weeks elapsed; in Case 27, six months; in Case 28, seven weeks, and in the case with essential shrinkage of the conjunctiva, several years. It is difficult, in obtaining a history from the illiterate, always to secure a clear statement of facts or we would probably more often discover what appears to be an incubation period.

THEORIES AS TO THE ETIOLOGY DISCUSSED IN THE LITERATURE

The literature reflects that the cause of pemphigus has been regarded as infectious, allergic, metabolic and endocrinous. It is likely that the last hypothesis may be summarily dismissed. No metabolic disturbances have been consistently ascertained in pemphigus by any known methods. It is not associated with disturbed nitrogen nor sugar metabolism, nor have any examinations of the blood and spinal fluid for any other abnormal bodies revealed their presence. This may be due to limitations of method. Allergic and anaphylactic cutaneous diseases are urticaria and prurigo; pemphigus suggests neither, except bullous urticaria and erythema, but these are proverbially mild diseases. Nor is there any evidence of their relationship either in appearance, behavior or known causation.

PEMPHIGUS MAY POSSIBLY BE AN INFECTIOUS DISEASE

The infectious theory too has its great limitations. The disease is afebrile, but so often is tuberculosis, while syphilis almost always is. The blood picture certainly negates any pathogenic organism in the

streptococcus or pneumococcus group. On the other hand, the frequency of the onset in the mouth favors infection, and the fact that it may occur elsewhere is explicable by assuming that the infection is carried from the mouth to other parts of the body—a view by no means extravagant considering the uncleanly class of people usually affected. Let it be clearly stated here that the overworked theory of focal infection is not being invoked, for this hypothesis explains too much. Blood cultures in pemphigus have invariably been negative. Thus if it is an infectious disease, the causative agent is no known one. The pathogenic organisms in the exanthemas have not yet been demonstrated, and pemphigus may have a similar origin. Since its mortality is 100 per cent., such an organism would be more virulent even than that of variola, and since arsphenamin (salvarsan) does not control the disease it is probably not caused either by a spirochete or other protozoon, such as Lipschitz's *cytoplasma oviforme* which, in one of the patients in our series, was sought for in vain by Dr. Ottenberg. It is not unreasonable, however, to accept as a working hypothesis that the disease is infectious, and that since the initial lesion is usually buccal the home of the organism is the mouth. How it gets there, what predisponent favors its pathogenicity, what it is, are even more remotely speculative than the assumption of its existence.

PATHOGENESIS

The etiology is admittedly vague, but no less so than its pathogenesis. Many dermatologists, notably the French school, regard it as a syndrome rather than an entity, with distinct etiologic, pathogenic and pathologic criteria. They class it as an anatomic rather than a morbid entity. Hebra's school assume the opposite view, and the disciples of Besnier, principally Brocq, reject the Viennese doctrine. In fact, Audry of Toulouse declares: "A French physician is unable to understand a Viennese article on chronic pemphigus. In France we no longer accept this syndrome. It has long, and we think rightly, been dismembered."

It appears more justifiable to lean toward the Austrian concept, and this with the further elaboration of Samberger who conceives pemphigus as a bullous eruption on a normal base, caused by a hypersecretion of lymph with papillary and epidermal lymphedema. The bulla is not the result of cell degeneration, as in an inflammatory lesion, but to a mechanical separation of the cells. Thus it is caused by a quantitative and not a qualitative change in the lymph. The hypersecretion is in turn the result of overacting vascular endothelium in the papillary plexus. If sustained a serious effusion results, as well as bullae, and a soft oozing surface with loosened epidermis develops

(Nikolsky's sign). Thus pemphigus foliaceus and pemphigus vegetans cannot be regarded as clinical entities, but as subvarieties of one disease of which pemphigus vulgaris is the commonest form. In support of this the coexistence of the various phases may be reiterated.

SUMMARY

The views of the present writers may then be summed up somewhat as follows: Pemphigus is an essentially bullous disease, the lesions of which are occasioned by hypersecretion of lymph referable to over-activity of vascular endothelium. Whether the immediately responsible factor is an infection, or something else, cannot be stated; but, on general principles, the weight of evidence appears to substantiate the former view. In support thereof are the initial lesion chiefly on the buccal mucosa, the apparent incubation period, the leukocytosis, mild fever and invariably fatal termination. These features, together with the interassociation of all subvarieties of the disease, indicate that it is a clinical entity and no mere syndrome, and that the ancient resolution of the malady into several distinct forms is untenable.

TOXIC ERYTHEMAS AND THEIR BULLOUS MANIFESTATIONS *

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Bullous lesions as an expression of toxic erythemas are of more or less frequent occurrence and may offer great diagnostic difficulties. As they do not develop in every attack of such, nor often represent the sole symptom, but, as a rule, part of a combination of symptoms, these latter should also be considered. The vast subject of toxic erythemas cannot be treated at length, however, in the time and space allotted to this part. Nor shall there be included in the list all erythemas based on a toxic etiology. For this reason the large group of infectious diseases leading directly or indirectly to one or more types of exanthema, and presenting, together with these, outspoken clear types will be omitted altogether.

ETIOLOGIC FACTORS

As nearly all toxic erythemas show a close resemblance to each other and their symptoms do not offer any possibility of classification (except a few), the rational method is followed by dividing them according to their etiology. And thus two large groups will be discussed: (1) that in which the causative agents are substances ingested as food or certain chemical material formed within the body, and (2) the erythemas following the administration of drugs. To these will be added a brief consideration of urticaria, which is truly a toxic erythema, and of the serotherapeutic erythemas.

1. *Erythemas Caused by Foods.*—Certain apparently perfectly normal food substances do cause in some people a severe erythematous reaction; as for instance, strawberries, cheese, lobster, eggs and a host of others. And this occurs with certain regularity every time an individual partakes of the food to which he is susceptible. On the other hand, foods which have undergone some deterioration before being ingested containing ptomains or other toxic material, and normal foods acquiring toxic character in their passage through the gastro-intestinal canal, are frequently the cause of erythemas. The latter may also occur with various diseases, as nephritis, uremia, gout, diabetes, cystitis, uterine and ovarian affections, gastric dilatation, habitual constipation and many others.

* Read before the Section on Dermatology at the Sixty-Ninth Annual Session of the American Medical Association, Chicago, June, 1918.

The cutaneous symptoms which are encountered as a result of these intoxications are of a polymorphous character, that is, they show various lesions. These may be urticarial, macular, papular, purpuric and bullous. A single type of these may comprise the eruption of an attack or there may be more than one. The most frequent are the urticarial, macular and papular, while the bullous lesions are of rarer occurrence, and then as a rule develop on the basis of others. The urticarial manifestations may be represented by either smaller or larger wheals or extensive plaquelike elevations; the macular, as a rule, in the form of a more generalized morbilliform eruption; and, lastly, the papular in smaller or larger irregular patches, discrete or confluent, or as a generalized scarlatiniform erythema. This last form is accompanied by a lesser or greater amount of edematous swelling and often gives rise to bullae. This is observed mostly in certain areas of the skin, as on the face, ears, hands and the outer genitalia, especially so in children. In rare instances of this class pictures of erythema multiforme are encountered.

2. *Erythemas Caused by Drugs*.—The reactive phenomena of the skin from the administration of medicinal substances present the truest class of toxic erythemas, because these substances are of a strictly known chemical composition and dose. The latter facts do not, however, determine the character of the cutaneous lesions, if such be produced. Therefore, a classification on the basis of difference in their chemical formula is in the great majority of cases just as little possible as it is on the strength of clinical difference of the lesions. One drug may produce various forms of erythema, while one and the same form or type may be produced alike by many. There are, however, typical pictures produced by some drugs, which permit to identify the same. The majority of drugs are apt to produce erythemas which correspond absolutely to those various forms excited by the toxic agents enumerated in Class 1. It would lead too far to consider all drugs which may act as toxic agents. For a closer study and complete review of this subject the excellent volume by Morrow¹ may be recommended.

Only a few drugs will be mentioned, those showing unusual manifestations, as we encounter them after the use of iodine, bromine and arsenical compounds and antipyrin which, however, may also produce all types of lesions as those from other toxic causes.

Iodine Compounds: These may produce a peculiar form of acne which occupies most frequently the locations of vulgar acne, or may be more generalized. The papulopustules of this acne show a greater intensity of inflammation and are, as a rule, larger and more sensitive

1. Morrow, P. A.: The New Sydenham Society, 1893, 143, p. 361.

than those of the vulgar form. These acneiform lesions may coalesce and form papillomatous, flat plaques or tumorlike aggregations, which are then most frequently situated on the face and extremities (*iododerma tuberosum*). The iodic acne is a nearly constant initial symptom of iodine intoxication and will frequently be helpful in the diagnosis, as will be the symptoms of the erythematous affection of the mucous membranes of the nose and mouth and the headache. The bullous eruptions may be generalized or appear as a symptom of a complex character resembling erythema multiforme. In this instance there may develop considerable swelling of the whole face, dorsa of the hands and forearms. Within these swollen areas are seen numerous bullous lesions with apparently clear or sanguinolent contents. Most of these bullae have not true fluid contents, but are pseudobullae. On incising them scarcely any serum exudes, but there is protruding a glassy, semi-solid mass, consisting of copious cellular elements. In the milder as well as in the severer types there may also occur pemphiguslike lesions on the oral and nasal mucosa. The intensive form is frequently accompanied by severe systemic symptoms and may lead to death. It is of peculiar interest that even small doses of the drug may bring about the most intensive cutaneous reaction. It has, however, been observed that the grave cases of iodic erythema occur in patients suffering from renal or cardiac insufficiency.

Bromine Compounds: These may cause various lesions, the bullous, however, are very rare. Most frequently the bromine acne is encountered which shows great similarity to that caused by iodine salts. These papulopustules show a great tendency to coalesce and form coinlike or irregular plaques, as also characteristic tumorlike formations, especially on the face, neck and anterior tibial surfaces (*bromoderma tuberosum*). Whichever other types of lesions may occur after the ingestion of bromine compounds, their nature and cause will be ascertained by the regularly simultaneous presence of the typical acne.

Arsenical Compounds: These may produce the symptoms common to the other erythemas. The characteristic changes, however, are the palmar and plantar keratosis and the melanosis. The latter may affect the integument as a whole, or only in parts, as the chest, back and those places which normally show deeper pigmentation. As a rule, this develops after long use of the remedy and its appearance should be a caution not to continue the use of the drug, which would otherwise increase the pigmentation. The condition resembles that seen in Addison's disease, is caused by the increase of the normal pigment of the skin and may remain stationary for years. It develops most frequently in places which previously have not been the seat of any lesions at all. The bullous manifestations may be represented by

zosteric eruption which does not differ from the usual picture of herpes zoster. While this latter condition may occur after shorter or longer ingestion, the bullous lesions of generalized distribution develop after long continued use of the drug. In some of these cases grave, general symptoms may also be present.

Antipyrin: This drug may cause eruptions which cannot be distinguished from those produced by various other toxic agents. These eruptions are, as a rule, more generalized in distribution. Of greater interest and importance are, however, the circumscribed or fixed forms. These consist of well-defined, slightly elevated erythematous, red, round disks or papular plaques, of sizes of the different coins; they are few in number—sometimes only one lesion is present—asymmetrically arranged and located quite distant from each other. Their places of predilection are the dorsum of a hand, wrist or forearm, gluteal region, lower part of the abdomen, external genitalia; rarely the face. These areas shortly change in color, becoming livid and then brown. The pigmentation remains for a certain length of time. Frequently bullae develop on these plaques, which transformation may occupy a part or the whole of them. Bullous lesions of limited distribution develop also independent of these, and they occur with preference on the dorsa of the hands and around the natural openings, that is, genitalia, around the anus and mouth, and also within the mouth. They show a tendency to rupture easily, leaving oozing surfaces, and in the mouth excoriations. These bullous remnants may give cause for diagnostic misunderstanding—they may, for instance, be mistaken for syphilitic lesions. After healing, pigmentation is noted, as it is in the plaquelike lesions. These circumscribed forms are very interesting because on repeated ingestion of the drug the very same places become affected in the same manner as before. Through repeated attacks the pigmentation, after healing, becomes more intensified, and these dark areas may remain *quasi* permanent for months and years.

CONSIDERATIONS OF URTICARIA

With true urticaria bullous transformation is exceedingly rare, and this is based on the anatomic conditions of the wheal. While there is considerable edema in the corium, the epidermis is nearly free from it. There are, however, two exceptions to this rule. The urticarial lesions after drugs may show bullous changes, as do the lesions of that form of chronic urticaria known as lichen urticatus or strophulus, observed in infants and in young children. Here are found various lesions, copious red spots, true wheals, nodes and small, flat angular urticarial lesions (resembling lichen planus papules). All these lesions

may readily assume bullous changes, as may bullous lesions occur independently of these. The disease is accompanied by intensive itching. Sometimes the bullous lesions are quite numerous and to such a degree predominant that at superficial examination other bullous affections might be suggested. On closer inspection, however, small angular papules will be found also, and thus the true nature of the disease disclosed. Lichen urticatus is mostly caused by gastrointestinal derangements.

SEROTHERAPEUTIC ERYTHEMAS

The erythemas occurring after the application of therapeutic serums are in general not different from those enumerated in the preceding groups, although the urticarial and scarlatiniform manifestations are most frequently observed. The alien serum per se acts as a toxic agent.

DIAGNOSTIC FEATURES

Bullous eruptions of toxic erythema may offer some diagnostic difficulty. Any eruption of unusual character and distribution should arouse our suspicion as to a toxic cause. The usual presence of other types of lesions together with the bullous, and their sudden development should be cause enough to subject the patient to a thorough examination and to inquire as to a certain substance having been taken, or if previous attacks of like nature had occurred after the ingestion of such. Certain bullous forms, as the intensive cases from iodine compounds, arsenic and antipyrin, or those occurring in strophulus, may imitate other well known dermatoses. But the symptoms outlined before will typify them sufficiently.

The toxic erythemas have all a common anatomic basis and are expressions of inflammation; hyperemia, transudation and exudation. The edema may occupy the upper or all layers of the corium, as the epidermis. The bullous lesion represents the highest degree of intensity of the edema in the epidermis. In urticaria, as outlined before, the epidermis does not show any degree of edema as to cause bullous transformation. In two instances, however, it may take place in urticaria from drugs and in the chronic form in children, known as strophulus or lichen urticatus. Only one symptom of toxic erythema which does not develop on the basis of hyperemia is the melanotic discoloration of the skin after the use of arsenic. We see pigmentary changes in other toxic erythemas, but these are the results of the preceding exudation and consist of remnants of blood, while the pigmentation from arsenic represents an increase of normal pigment; it is melanotic.

IDIOSYNCRASIES

The question of the great susceptibility of some individuals to certain substances in developing erythema is very interesting, but as yet not fully answered. We see some persons react promptly on the ingestion of eggs or other albuminous substances, and this may occur with regularity even when the smallest amount is taken. The same holds true with some drugs, for instance, quinin. Once a person shows intolerance to it, a trace of it may suffice to produce an extensive rash.

SENSITIZATION

From our present-day knowledge of biologic phenomena we can explain the reactive symptoms after food substances and serotherapeutic serums as true expressions of anaphylaxis. The individuals thus reacting have become sensitized through and to alien albumin. A similar sensitization might take place with quinin. This condition of anaphylaxis does not necessarily exist throughout life. Some people may tolerate foodstuffs of all forms for many years, and suddenly one will produce an intolerance which may last for a longer or shorter time. In other words, this abnormal condition may be overcome, as it is acquired. It is further noteworthy that the sensitization of an individual to one specific substance may make him, to a certain degree, intolerant to toxic material of different composition. So we observe that if an individual is suffering from a toxic erythema from other causes than from a drug and intensive itching or burning is present, sedatives or hypnotics will give temporary relief of the latter, but after subsidence of their action the symptoms will be aggravated.

The greater or lesser intolerance to drugs and their reactive erythemas, which may be changeable with the same individual, cannot as clearly be ascribed to anaphylaxis, but may have a similar basis. All we know with certainty is that persons suffering from renal or cardiac insufficiency do not tolerate drugs as well as normal individuals, and this is especially true with the iodine compounds, but it may be explained on the ground of deficient elimination. The toxic substances developed within the body act in regard to the question of susceptibility according to their composition, either like albuminous or like other chemical substances.

FURTHER OBSERVATIONS

It is possible that various phenomena, not as yet understood, may form a common basis for the development of erythema from various causes. In the enumeration of the typical arsenical eruptions there was mentioned the melanosis, which bears great resemblance to the coloration in Addison's disease. This latter stands in close relation

to affection of the adrenals, as does pigmentation to this gland in a normal state. This suggests the possibility of some connection between ductless glands and the production of toxic erythema. We see further cutaneous changes, from thyroid defect (as in myxedema), from ovarian affection and in menstruation. The ductless glands, in close cooperation with each other, maintain to a certain degree the physiologic equilibrium. This may be disturbed through altered conditions in one or the other gland. Through certain toxic substances they may be influenced in their normal or altered state and be helpful in producing greater susceptibility and with it erythema.

CONCLUSIONS

1. Toxic erythemas are of frequent occurrence. The bullous manifestations are least frequently observed and then there are, as a rule, other lesions also present.

2. An eruption which cannot be placed as a well known dermatosis and develops suddenly should arouse suspicion as to a possible toxic cause.

3. In administering drugs, especially iodine compounds, it will be advisable to ascertain whether the patient is suffering from renal or cardiac insufficiency.

4. Inasmuch as most drugs are apt to produce erythema, caution must be used in administering sedatives and, more so, hypnotics for the relief of severe itching and burning accompanying toxic erythema. The drugs will relieve these symptoms temporarily, and with the cessation of the action of the drug, the same will be more intensified.

5. The increased susceptibility to certain foodstuffs and albuminous substances, which are produced within the body, may be explained as the result of anaphylactic sensitization. For drugs and nonalbuminous material ingested with decomposed foods or developed within the body, a similar phenomenon suggests itself. The question as to how much the ductless glands may have to do with the development of such susceptibility must be left to future investigation.

31 North State Street.

ABSTRACT OF DISCUSSION ON PAPERS OF DRs. GOLDENBERG AND HIGHMAN, AND DR. LIEBERTHAL

DR. HENRY H. HAZEN, Washington, D. C.: I had the opportunity to study six cases of pemphigus and my conclusions were similar to those of Dr. Highman. In each of the six cases the primary lesion was found to be auto-inoculable. Serum from a vesicle inoculated into the skin will produce new lesions. As a control we tried various substances, such as normal saline, mild proteins, so as to make sure that the lesions were not produced by irritation alone. In a number of instances we succeeded in inoculating new bacteria. A number of different organisms were isolated. In some cases there was the pseudodiphtheria bacillus, staphylococcus and pyocyaneus, and one or two could

not be identified in the scientific departments at Washington. We thought from this evidence that some cases of pemphigus may be due to infections. At the same time, I feel that when we say pemphigus we are including many cases of eruption that we cannot define definitely. In Dr. Highman's cases there can be doubt that that one disease was under discussion, but from the literature and textbooks I am sure the term pemphigus covers many conditions. In two or three of my cases I noted that the lesions apparently began as impetigo. I think Dr. Highman stated that the blood cultures were always negative; in one case we found the bacillus pyocyaneus both in the urine and in the blood.

DR. RICHARD L. SUTTON, Kansas City: Dr. Highman seems to have been particularly unfortunate in coming in contact with a series of such serious cases of the disease. I think we can separate pemphigus into two groups of cases, the acute and the chronic. The acute, which is represented by the Pernet-Bulloch type, cases of which have been described by Bowen, Pollitzer and Grindon in this country, usually occurs in butchers and others of similar occupation, and often terminates fatally. The chronic type may again be divided into three distinct groups: Chronic, uncomplicated pemphigus, pemphigus foliaceus (which I believe to be chronic pemphigus plus a bacillus pyocyaneus infection), and pemphigus vegetans (which probably is chronic pemphigus plus a staphylococcus infection). Dr. Hazen's suggestion is an extremely interesting one. Rosenow found streptococci in the vesicles of herpes zoster, why not micro-organisms in pemphigus bullae?

DR. A. RAVOGLI, Cincinnati: In one case I think I made a mistake. I was called to see a patient who had a bullous eruption all over his body associated with severe general symptoms. My first impression was that it was a case of pemphigus. I have already established in my mind that pemphigus is the result of nephritis; the urine is neutral in reaction; there are albumin and casts present. In this case the urine was acid clear and negative. He had a bullous eruption. I kept on with the diagnosis of pemphigus, however. The patient died and the Industrial Commission offered to pay his indemnity. If I would have put down the diagnosis of pemphigus, the family would not have received a cent, but if I put down infectious bullous dermatitis he would have been paid. The man was caught between the doors of an elevator and had a severe excoriation on the calf of the left leg. This was neglected, it became full of crusts, and from there the dermatitis of infectious nature started, so I made a diagnosis of dermatitis bullosa septica following the trauma.

I believe that in pemphigus there are always the toxic elements of the urine which produce the peculiar bullae and the peculiar lymphatic edema. In pemphigus foliaceus, in some cases, it was difficult to give a subcutaneous injection, the epidermis could not be taken between my fingers to make the injection—it would come out. It is true that in the patients who die, the diagnosis of pemphigus seems right, while in the patients who get well the bullae are nothing else than an epiphenomenon. In one case of pemphigus foliaceus a little relief was obtained from endovenous injection of Fischer's solution.

I did not hear anything about epidermolysis bullosa. That is one of the most wonderful bullous eruptions we can ever see. It is stubborn, and when of hereditary type, is hard to bring to recovery. It resembles somewhat dermatitis herpetiformis, but it is on entirely different disease. Every time the patient received a little injury on the skin it produced bullae. The bullae follows a local edema; it seems to be nothing less than a true erythema from an unstable vasomotor condition, and this erythema produced by the slight trauma, causes effusion of serum and bullae.

In reference to the paper of Dr. Lieberthal, there is no doubt that toxic erythemas have their origin from a toxic condition of the system, and this very likely is caused by faulty elimination from the kidneys. When the function of the kidney is normal enormous doses of iodid of potassium will not produce

any trouble; in other patients in whom the elimination through the kidneys is not active, 5 or 10 grains of the drug may produce a bullous eruption and toxic erythema. Erythema bullosum follows the touching of the skin with toxic sumac and other plants which have irritating properties. A poor fellow had dermatitis venenata from *Rhus toxicodendron*, first on both legs and then all over the body; bullae covered nearly the whole body. It was nothing else than a toxic erythema.

DR. JOHN A. FORDYCE, New York: I recently observed several cases of dermatitis herpetiformis which point to focal infections as a possible etiologic factor. One patient presented typical lesions of dermatitis herpetiformis with intense itching. I suggested that a roentgenogram be taken of the teeth. This was done and several apical abscesses revealed. The teeth were removed and the skin lesion rapidly improved and finally disappeared. Another patient had suffered for many years from a recurring bullous eruption which was also intensely pruritic. His teeth were in bad condition. He was sent to a dentist who made a culture from the secretion about the gums and found the *Streptococcus viridans*. Several teeth were removed, followed by a great intensification of the skin trouble. Since then all of the diseased teeth have been removed and the eruption has shown a considerable improvement. It has not disappeared entirely. I can confirm the observations of Dr. Highman as to the failure of any local or general treatment in controlling pemphigus vegetans; two such cases are now under my care and in both the lesions are proving refractory to any method of treatment which I have been able to employ.

DR. MICHAEL L. RAVITCH, Louisville, Ky.: I have seen few cases of bullous eruptions, one of pemphigus and dermatitis herpetiformis and a few of erythema multiforme at Camp Zachary Taylor. It is a peculiar thing that when the pneumonia was at its height we found most of these cases, and when the pneumonia had subsided the skin reactions did not make their appearance. I could not draw a distinct line between true pemphigus and erythema bullosum, but there is no question but that those patients who died must have had a true pemphigus, and I have no doubt but that all these cases were of an infectious nature. When I am accepted in service I will study these cases further, and will have a better opportunity to give you a better report.

DR. H. G. IRVINE, Minneapolis: The rôle of focal infection in these diseases is exceedingly interesting, but we will have to withhold judgment for some time before we can decide that focal infection is actually the cause of them. I had one case of dermatitis herpetiformis of several years' duration which was under observation for two years. It was a case with all the earmarks of a toxic etiology. The gastro-intestinal tract, teeth and tonsils were examined. The tonsils were undoubtedly infected and were removed. The man improved remarkably and I presented him before the Minnesota Dermatological Society with practically no lesions within two or three weeks of the removal of the tonsils. Two or three months later the lesions recurred with more severity than ever before. Since that time the condition has continued, being sometimes better and sometimes worse. The improvement from the removal of the tonsils was only temporary.

DR. JESSE B. SHELMIER, Dallas, Texas: Four years ago an old gentleman came to me with an eruption of the face and hands which gradually spread over the entire body. Various diagnoses were made by dermatologists of Kansas City, St. Louis and New York. In the end it proved to be a case of dermatitis herpetiformis. This diagnosis was made by Dr. Engman. After suffering four years, with little relief at any time, his teeth, which were in a very bad condition, were given attention, and from that time he commenced to improve. It has now been about six months since this focal infection was cleaned up, and he is now almost free of any trouble and has been able to attend to his business again.

DR. PHILIP F. SHAFFNER, Chicago: About two years ago I saw a particularly severe bullous eruption in a young child with a very pronounced involvement of the mucous membranes. The tonsils were enormous and we decided to have them removed. Within a few days after the removal of the tonsils the eruption cleaned up entirely. Perhaps it is not the focal infection per se that causes the trouble, but the diseased tonsils or teeth may furnish an atrium of infection.

DR. SAMUEL E. SWEITZER, Minneapolis: I have studied the etiology of the pemphigus and dermatitis herpetiformis group considerably. An old gentleman had a pemphigus of a rather acute type. We advised that the teeth be extracted one by one, thinking it best to try to remove the infection by the slow extraction rather than by rapid removal of the teeth. But the old gentleman had the teeth extracted all at once. Following this he had a very severe infection and died. We thought that if one focus of infection was removed at a time, at intervals of several days, it would have been better. We have examined these cases from all angles, and in every hospital patient we have taken out the tonsils and extracted the teeth, but so far we have not had any results. The patients have the same relapses, whether there are bad teeth and tonsils or not in a dermatitis herpetiformis.

DR. EVERETT S. LAIN, Oklahoma City: It is gratifying to hear such men as Dr. Highman and Dr. Fordyce speak well of focal infections. Dermatitis herpetiformis was one of the first diseases I studied in 1913 and 1914. Within the last few months I have again taken up a clinical study of this disease. My experience has been similar to that of others. I have seen a marked remission in many cases after removal of foci of infection. In some cases there have been recurrences, but nothing like the previous ailment. In some of these cases a surgeon has subsequently found an infected gallbladder or appendix, which may still account for a focal infection being the etiologic factor.

DR. JOSEPH ZEISLER, Chicago: It is just twenty-five years since I was commissioned by the late Dr. Morrow to write the chapter on pemphigus in his "System." At that time I made a very careful study of the bullous eruptions, and since then my interest in the subject ever remained keen and alive. It is a very remarkable acknowledgement to make that very little real progress has been made in these twenty-five years in our knowledge of pemphigus, and that we practically stand still on the same ground occupied at that time. Even the modern views concerning the relationship of focal infection to these eruptions are of small help to clarify the atmosphere.

A few points stand out clearly, as they have before. In the first place, the mere presence of bullae does not constitute pemphigus. If this were so, bullous eruption from iodids or from vesicants would be a pemphigus. Secondly, the character of the bullae determines their clinical importance. I am sure you all agree with me that a bullous eruption in which the blebs are firm and dense is as a rule, benign. If they are flaccid and break easily, they denote malignancy. Therein we have the distinguishing points between pemphigus vulgaris, which is often curable, and pemphigus foliaceus in which we are almost always helpless to arrest the fatal termination. A few years ago I presented before this association a report of a group of cases of apparent pemphigus which were all due to infection with some kind of a meat poison. All of the cases occurred either in butchers or in persons who had to do with meat products. Within the last few weeks I observed another case of this kind in a man who spends a good part of the day in a butcher shop. He developed an intense bullous eruption on his face and hands which was easily relieved by keeping him away from his place of occupation.

Another point and a therapeutic suggestion: The curable cases of pemphigus are still best managed by the two great remedies, arsenic and quinin. We have tried in our practice, occasionally, the injection of autoserum, but have seen no benefit from it.

Concerning the question of dermatitis herpetiformis, I still feel that it is a distinctly benign eruption with an underlying involvement of the nervous system. I have not the slightest doubt that all cases of dermatitis herpetiformis owe their origin to some deep impression on the nervous system.

DR. WALTER J. HIGHMAN, New York: We have had a series of thirty cases of pemphigus in the last few years at Mount Sinai Hospital, eight of which were examples of the rare forms and twenty-two of which were pemphigus vulgaris. Of these twenty-two cases, all the patients died. I think the only case of pemphigus that survived over two years was a case of pemphigus foliaceus, and that patient is dying. As to diseases related to pemphigus—the other forms of bullous eruption—we stated that we were not defining them now or presenting a thesis. We are trying to subdivide this vast group into various subgroups so that we will have a tangible working basis. We do not know that it is correct to isolate pemphigus. We do know that some of the related groups are mild and some severe, just as in any other disease. We know that there is one group of cases which runs a mild clinical course, although it ends fatally, and this is the group which I would be tempted to call pemphigus, whether acute or chronic.

Contrary to Dr. Ravogli's experience, I have never found any renal involvement, except in one case. I have never found anything at necropsy, and neither has any one else, so far as I know. Unquestionably there are conditions that look like pemphigus in which you can get a positive blood culture. Perhaps, all cases will show this when we know the proper method of isolating the organism. It may be an anaerobic organism or a protozoon.

In a case which I diagnosed clinically as pityriasis rubra of Hebra, I made an unfavorable prognosis. The man had been sick for two years. He had bad teeth and thinking that he might have the additional comfort of a clean mouth, his teeth were extracted and he recovered. Since then we have been pulling enough teeth to satisfy even Cadmus, but they have all kept their dermatitis exfoliativa. I had a patient who had thousands to waste and he wasted them on a dentist. Immediately afterward he developed dermatitis herpetiformis. I think that tooth abscesses, septic tonsils, or theoretically, even one streptococcus—if you may recognize one streptococcus—tucked away in a tonsil or appendix may be an etiologic factor. Is every disease due to a focal infection? When we apply focal infections to such diseases as dermatitis herpetiformis, which is self-limited and comes in groups, we have to think very carefully and very slowly and perhaps not so enthusiastically as our friend from Kansas City.

DR. DAVID LIEBERTHAL, Chicago: I subscribe to everything Dr. Highman said. Within the last twenty-five years I have seen many cases of pemphigus and have learned not to make a diagnosis until absolutely sure of my ground. I have never seen a patient afflicted with pemphigus recover. Therefore, when I make a diagnosis of pemphigus I feel justified in giving a bad prognosis also.

RETENTION CYSTS OF THE MUCOUS MEMBRANE OF THE LIP*

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While it is probable that cases of simple retention cyst of the labial mucosa are more frequently encountered in the practice of dermatology than in any other branch of medicine, the condition has never been described, so far as I know, in any of the standard textbooks on diseases of the skin. In a few treatises on surgery, and particularly in those dealing with the injuries and malformations of the mouth, the disorder is mentioned, but as a rule only casually.

RECENT OBSERVATIONS BY THE AUTHOR

My attention was first attracted to the affection about four years ago, and since that time I have seen eleven typical examples. Brophy¹ speaks of the frequency with which the lesions occur in cases of hare-lip, but in none of my own patients was this deformity present.

Anatomically, the structures principally affected are the ducts of the labial glands (Sebastian²). These organs, which are in reality diminutive salivary glands, vary from 0.5 to 1.5 mm. in diameter, and from 40 to 60 or more in number. They are located just beneath the mucosa, where they can be felt as small, shotlike bodies. When the lip is everted, and carefully dried with a soft cloth, mucus can be seen exuding in dewlike drops from the tiny orifices of the ducts. These canals are also the ones which are involved in cheilitis glandularis apostematosa.

The excretory ducts are lined with a single layer of cylindric epithelium. The character of the contents of the cysts is dependent on the changes which have taken place. As Virchow,³ in speaking of mucous cysts in general, has said:

The contents usually are twofold, mucous and epithelial cells. If the epithelial cells are very numerous, the fluid contents assume a cloudy appearance. The epithelium does not always correspond with the epithelium which

*Read before the Section on Dermatology at the Sixty-Ninth Annual Session of the American Medical Association, Chicago, June, 1918.

1. Brophy: *Oral Surgery*, Philadelphia, P. Blakiston's Son & Co., 1915, pp. 847 and 1058.

2. Sebastian: *Recherches Anatomiques, physiologiques, pathologiques, et semeiologiques sur les glands labiales*, Groningen u. Bremen, 1842, cited by J. B. Murphy, *Clinics*, 1916, 5, p. 220.

3. Virchow: *Die Krankhaften Geschwülste*, 1863, 1, p. 236.

was previously present. The more the sac broadens out, the more the character of the epithelium is altered, as a rule; and, while in the beginning one finds in the sac the same epithelium as was originally present—pavement epithelium where there was pavement epithelium, cylindric epithelium where there was cylindric epithelium, ciliated epithelium where there was ciliated epithelium—it may later happen that one finds pavement epithelium alone, where previously cylindric or ciliated epithelium was present.

Traumatic and displacement cysts, while fairly common in this locality (Speese and Skillern⁴) do not come within the scope of the present paper.



Fig. 1.—Clinical appearance of a simple retention mucous cyst of the lip.

CLINICAL APPEARANCE

Clinically, simple retention cysts of the mucous membrane of the lip vary in size from that of a pinhead to that of a small hazelnut. The most common location is the lower lip, at a point overlying the left cuspid tooth. The lesions are somewhat paler than the normal mucous membrane (owing to the character of their contents and to pressure), and are painless. Frequently their presence is discovered only through accident. When they are incised, a whitish, glairy, ropy fluid escapes. If the opening is allowed to close, the cyst promptly refills.

Of the eleven cases under my observation, nine occurred in men. In every instance the lower lip was the one involved, and in seven of the eleven cases the lesion was opposite the left lower cuspid teeth.

4. Speese and Skillern: *International Clinics*, 2, 27th S., p. 256.



Fig. 2.—Showing the histopathologic structure of a simple retention mucous cyst of the lip. Low magnification.

TREATMENT

Brophy recommends incision, evacuation, and the application of tincture of iodine, or oil of cassia, or cauterization with zinc chlorid (15 per cent.), or phenol, followed by alcohol. In the milder cases, the employment of one of these measures generally suffices, but frequently it is necessary to resort to more radical measures, and entirely remove the offending lining membrane. In my experience the best plan is the removal of the sac *in toto* under novocain anesthesia. Skillern's⁵ method of nerve blocking may often be employed in these cases with highly satisfactory results. Following excision, the wound should be closed with horsehair or fine catgut sutures. In this way the amount of ensuing scar tissue is reduced to the minimum, and the possibility of ultimate development of degenerative or malignant changes at the site of the former lesion greatly lessened.

ABSTRACT OF DISCUSSION

DR. WILLIAM ALLEN PUSEY, Chicago: I have seen many of these patients, and it is surprising how often they come with a mistaken diagnosis. These cases are mistaken for initial lesions of syphilis and not infrequently for epithelioma, though, of course, they bear only the slightest resemblance to either of these troubles. There is one causal factor which Dr. Sutton did not mention, and that is traumatism. That is a frequent cause. They are, as Dr. Sutton says, quite intractable. Opening them and cauterizing with such caustics as iodine, phenol or silver nitrate is invariably followed by recurrence. Even thorough cauterizing with chlorid of zinc will often fail to cure them. I have treated them for the last few years by cauterizing them with actual cautery. A few drops of 2 per cent. novocain solution makes this quite painless. The cyst is emptied after incising, and the cavity is thoroughly cauterized with a small point cautery. It produces a cavity which looks quite formidable, but which heals with practically no scarring, and the results are permanent. The whole procedure can be done in a few minutes, and it is much more simple than excising and stitching together.

DR. JESSE B. SHELMIER, Dallas, Tex.: Twenty-two years ago my first cases of this nature came under observation. Two patients came then, and on looking up the literature I could find nothing in the works on dermatology or in any of the recent textbooks on surgery. In Ashhurst's "Surgery," printed many years before this, I found a few lines concerning this disease. I have had the same experience in opening and cauterizing these cysts that Dr. Pusey had. Now, I never attempt to treat them, except by complete excision, and I have had twenty or more cases in the past twenty-two years.

5. Skillern: On the Blocking of Infra-Orbital and Mental Nerves at Their Foramina to Induce Operative Anesthesia in Their Cutaneous Distribution, *Surgery, Gynecology and Obst.*, 1914, 18, p. 387.

Society Transactions

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, April 23, 1918

JAMES C. JOHNSTON, M.D., *President*

FIBROSARCOMA OF THE FINGERS. Presented by DR. WISE for DR. FORDYCE.

David H., aged 9 months, a healthy and robust child, presented pea-sized, globular, indurated, subcutaneous swellings on the backs of the first and second joints of two fingers of the left and three fingers of the right hand. They were of about seven months' duration. The skin over them was at first tense and pale, later becoming inflamed and edematous. A lesion of the ring finger of the right hand became ulcerated, and amputation at the second joint was performed. Biopsy revealed fibrosarcoma. The other lesion will receive roentgen-ray treatment.

DISCUSSION

DR. FORDYCE said that clinically he would not have thought the condition to be sarcoma; histologically, it would be difficult to differentiate between fibrosarcoma and fibroma. It did not suggest sarcoma to him. It was a unique case, and he did not know what to call it.

DR. HEIMANN said that he did not know that he could have made a clinical diagnosis of the case, but did not think he would have called it tuberculous. The infant was only 2 months old when the condition appeared, and tuberculosis in any form was extremely rare in infants under 1 year of age. If previous to the eruption the child had had an attack of measles, tuberculosis might be considered, and in any case syphilis was to be excluded though it had not the lesions of syphilis. The lesions were hard, more like fibroma or some other neoplasm; but in spite of this fact he doubted whether he would have made the diagnosis clinically which was indicated histologically.

NEVUS CEREBELLIFORMIS (SOFT MOLE). Presented by DR. WISE for DR. FORDYCE.

The patient, a girl, aged 16, presented a group of large, soft moles on the right buttock. They were said to have appeared five years ago, but the mother admitted that for a number of years previously she had felt subcutaneous tumors at the sites of the moles. The lesions gradually assumed tumorlike proportions, but were unaccompanied by subjective sensations.

On examination the upper and inner quadrant of the buttock presented three large masses together with several smaller satellite tumors. The surface of the moles was somewhat pink in color, the skin was smooth and velvety, and thrown into folds and ridges, resembling the convolutions of the cerebellum. They were attached to the underlying tissues by a broad and pedunculated base and were easily movable. Biopsy revealed the structure of a lymph-angiofibroma of the soft nevus type. The patient was referred to the hospital for surgical removal of the growths.

DISCUSSION

DR. MACKEE said that the histology was interesting. The epidermis was normal. In the upper part of the derma there was no collagen or at least no collagenous bundles, although there was a delicate network of connective tissue that stained very faintly. The lymph spaces were markedly dilated, and there were large numbers of young connective tissue cells. The tissue resembled that seen in soft fibroma—it also suggested myxomatous tissue.

DR. SHERWELL said that it resembled cases of xanthoma that he had seen, but it was evidently not that from the biopsy report. He had, however, seen two or three instances of very pronounced tumors in that region which were xanthomatous lesions.

DR. TRIMBLE said that he agreed with the diagnosis, of course, but it was a very unusual tumor. Once before he had seen one instance in the same locality, but could not recall the scientific name. This name had just been recalled by Dr. Fordyce "cerebelliform." It seemed to offer a very fine field for operation by the general surgeon, and it was rather surprising that some one had not attempted to remove it surgically.

DR. HEIMANN said that he did not see why this lesion should be called a nevus at all, as it had been present for only five years, unless one interpreted the term nevus in a very broad way. From the histologic description given by Dr. MacKee, and from a glance at the slide with the naked eye, the picture suggested a soft fibroma. It was very common to find myxomatous tissue in lesions of this type.

DR. MACKEE told of a case in which a lesion on the back of a girl's neck presented the same clinical picture as this one; it had the same soft type and color. It was treated with CO₂ snow and disappeared entirely; but two or three years later the patient developed a sarcoma and died in three months.

SCLERODERMA TREATED BY PITUITRIN. Presented by DR. TRIMBLE.

About two years ago the patient had about fifteen or twenty morphea lesions on the abdomen and breasts, also one the size of the palm of the hand over the sacrum. She was put on pituitrin, her toleration not exceeding 1 grain three times a day; most of the time she was given only ½ grain three times a day. Under this treatment she made an excellent recovery, and at the time of presentation there were only two or three very small pigmented lesions remaining over the sacrum. During the treatment she had severe headaches and nose bleed occurred on several occasions, and the dose had to be decreased.

The speaker said that he had several other similar cases in the clinic at the same time, all of which had been given the same drug without noticeable effect. They were dispensary patients, and did not continue treatment for any great length of time.

DISCUSSION

DR. HEIMANN said that it was interesting actually at last to see a case in which improvement had taken place under pituitrin. In the generalized type of scleroderma he had never seen improvement, even when the treatment had been maintained over long periods of time—for the greater part of a year.

DR. SHERWELL said that he had been particularly interested in the case since he had been one of the first to advocate the use of pituitrin in various skin affections, notably psoriasis. Dr. Johnston's case (which had been his originally and had been transferred to Dr. Johnston on account of propinquity of abode) to which Dr. Trimble had referred, received tremendous doses—15 or 16 grains three times a day without any adverse symptoms. She had been under the same treatment, not such large doses, however, in the speaker's hands. The case was generalized scleroderma, the worst he had ever seen, the disease affecting at least half the body and the limbs; the face badly and symmetrically affected; the hands and arms up to the shoulders, etc. The condition was especially

marked toward the extremities of the lower limbs, the skin being hard and ivorylike. Before the patient came under his care she had been treated by several physicians without beneficial result. The pituitrin treatment benefited her to an appreciable extent, the face softened somewhat and the arms improved, but the future was problematical and it seemed doubtful if further improvement would accrue. Dr. Johnston had so treated the "white spot" affection and other cases with effect. The speaker said that he had used pituitrin a great deal in psoriasis with remarkable results, especially in cases of over-fatty children; in some patients it proved to be the only remedy, and they had recovered and remained well for two or three years. This matter (pituitrin treatment) had been brought up at a meeting of the American Dermatological Association by the speaker some three or four years since, and he had then spoken of using it in connection with psoriasis.

DR. TRIMBLE said that he had wanted particularly to bring out the point that out of five patients treated with pituitrin this was the only one that had shown any improvement. There were two cases of sclerodactylia in which it had been administered over a long period with no improvement whatever; two others were beautiful cases of morphea, but no control could be exercised over them, and they did not take the treatment regularly. None of the patients could take over one-half grain comfortably, and the best he could do was to give 1 grain three times a day. Anything above that produced the constitutional effect of the drug—severe headaches, nosebleed, etc.

LUPUS ERYTHEMATOSUS (NODULAR TYPE). Presented by DR. WISE for DR. FORDYCE.

Mrs. H. H., aged 45, was in good health and presented numerous patchy lesions of lupus erythematosus on the cheeks, brows and ears. The lesions on the cheeks consisted of a series of circular, raised, distinctly infiltrated and edematous nodules, arranged in circinate form, the center showing only a little inflammatory reaction without palpable infiltration. At first glance the plaques resembled a nodular syphilid. The other patches, those on the ears and eyebrows, were typical scaly lesions. The Wassermann reaction was negative. Biopsy of one of the nodular lesions revealed the characteristic structural changes of lupus erythematosus.

DISCUSSION

DR. MACKEE said that the histology explained the presence of the nodules. There was the usual amount of infiltration, and, in addition, an enormous amount of edema. The edema also explained why the nodules of lupus erythematosus were rather transient.

NEVUS VERRUCOSUS. Presented by DR. WISE for DR. FORDYCE.

K. K., woman, aged 26, presented a xanthomalike, flat, warty lesion on the occipital portion of the scalp. The area was about 1 inch in diameter and the surface was hard and rough to the touch. The lesion had been present since birth. At the posterior edge of this patch was a tab of granulating, moist, soft tissue, attached by a pedunculated ribbonlike pedicle to the periphery of the warty growth. This had existed only since the past two or three weeks. The patient gave a history of trauma from a hat pin.

DISCUSSION

DR. HEIMANN thought it was a wart, and that one end had become infected.

DR. MACKEE said that it appeared to be a granuloma, but that it had sprung from the nevus; one should, therefore, consider the possibility of sarcoma.

MULTIPLE PIGMENTED SOFT NEVI AND VERRUCAE PLANAE.

Presented by DR. WISE for DR. FORDYCE.

H. E., married, a negress, aged 59, had been treated for chronic eczema of the upper extremities and trunk for several months. Since the past four months the patient stated that numerous small growths had made their appearance on the face and neck, unaccompanied by subjective sensations. On examination the right side of the neck presented several dozen soft and hard growths, deeply pigmented, varying in size from a pinhead to a pea, and resembling ordinary moles. On both cheeks were a large number of pinhead sized, well-defined flat warts, similar to verrucae juvenilis in appearance.

TUBERCULOSIS VERRUCOSA CUTIS (?). Presented by DR. MACKEE for DR. FORDYCE.

The patient was a man, aged 35, an elevator operator. The eruption consisted of dull red, palm-sized verrucous and vegetating lesions on the cheeks, neck, chest, and dorsa of the hands. There was some suppuration and exudation. According to the history, the first lesion developed on the cheeks three months before the patient came under observation. There was a distinct tendency toward spontaneous healing with scarring. The speaker said that several diagnostic possibilities would have to be considered, but he thought the two diseases that would have to be most carefully differentiated were blastomycosis and tuberculosis. Against tuberculosis was the short duration, rapid evolution and involution. On the other hand, the small amount of exudation, edema, pustulation, together with the markedly irregular scars, suggested tuberculosis. The scarring was exactly like that seen in scrofuloderma. The patient was seen for the first time on the day of presentation, so that there had been no time for investigation.

DISCUSSION

DR. FORDYCE did not think a positive diagnosis could be made without the aid of a microscope.

DR. TRIMBLE said that the fact that the lesion on the hand was dry, and that the patient had lesions on the side of the neck that resembled scrofuloderma, would lead him to think that it was tuberculous. Of course, other affections could not be ruled out without further study. The lesion on the wrist was suggestive of scrofuloderma.

DR. WHITEHOUSE thought it resembled tuberculosis more than anything else, but a biopsy would clear up the matter.

DR. HEIMANN said that all agreed that it was one of three conditions. If it were tuberculosis, it would be more disseminated; if blastomycosis, it would be the Gilchrist form; in favor of sporotrichosis was the tendency to spontaneous involution, and the tendency to lymphatic vessel involvement, as seen on the wrist. That, however, might also be true of blastomycosis. In his opinion, the first two to be ruled out were blastomycosis and sporotrichosis. On the clinical evidence it seemed more like sporotrichosis than any suspected case seen in the last five years.

DR. WISE favored the diagnosis of tuberculosis for the entire process.

CASE FOR DIAGNOSIS (RAYNAUD'S DISEASE ?). Presented by DR. WISE for DR. FORDYCE.

The patient was a man, aged 38, married, a native of Russia. He had been treated at the Vanderbilt Clinic for the past six months, without showing improvement. He presented a bluish-red, congested, perniolike appearance of the hands and feet, and complained of great pain in the feet after walking short distances. In addition, he had recurrent attacks of erythema nodosum, some of the nodose lesions being present on the feet and legs when exhibited.

These lesions would disappear spontaneously and were slightly tender to pressure. The diagnosis of beginning Raynaud's disease was suggested. The treatment with massage, electricity, dry heat, etc., had proved unavailing. Several Wassermann tests were negative, and the history as to syphilis and gonorrhea was negative. He was presented with the hope of obtaining suggestions as to treatment.

DISCUSSION

DR. LANE was inclined to make a diagnosis of early Buerger's disease (thrombo-angeitis obliterans). The symptoms were fairly typical. In some cases syphilis was probably the etiologic factor, and a negative Wassermann reaction in this case of course did not rule out the presence of that disease. The fact that the patient suffered pain after walking a short distance was not conclusive but was rather suggestive of Buerger's disease.

DR. TRIMBLE said that, as one of the speakers remarked, every time they were confronted with a case like this three or four processes come up for consideration. In days gone by this case would have been considered erythromelalgia. If the patient had symmetrical gangrene, it would be called Raynaud's disease. Since he had no gangrene, it could not be called that. It was certainly a vascular process, and that was about as far as any one could determine. The clinical features were quite distinct; although these cases were rare, they were encountered now and then, and every case had exactly the same clinical symptoms, with perhaps some difference in degree; pain in the foot, and the dusky redness, that this man had. The condition was more frequently unilateral than bilateral; the main difference was that some cases had more cyanosis than others. This might be accounted for by the fact that in some cases the veins and the arteries were both affected. The speaker said that he had seen three cases within the past year; two were private patients examined in consultation, in whom the diagnosis was complete so far as it could be made. One patient had a negative Wassermann reaction; the other gave a positive test. Of course, many physicians concluded that the condition was a syphilitic endarteritis as soon as they heard of the positive Wassermann test. Another case was the counterpart of this one, with a small area of gangrene on one of the small toes. This latter case was shown at one of the meetings of the Society, and continued to progress. That patient had a ++++ Wassermann reaction, and was treated with salvarsan and mercury, none of which caused any improvement. The condition progressed until an amputation at the knee joint became necessary. Weir Mitchell first called attention to the condition many years ago, and being a neurologist, he thought that the nervous system was in some way at fault. As said before, the clinical syndrome was always the same, and we might as well retain the name given to it by Weir Mitchell, until we learned something more about the condition. Regardless of the cause, the clinical picture was the same.

The prognosis was bad, and Dr. Heimann had outlined the treatment very well, only it would be of no value. The man would never have any relief unless some better knowledge about the condition could be found. It would either progress and eventually come to amputation, or it might remain about as at present for an indefinite length of time. He had never seen a case that was benefited by any treatment. There was no use trying to find a new name for the condition; better call it erythromelalgia and let it go at that, until we know more about the disease.

DR. LANE did not think that this case, nor that Buerger's disease, could be classified as erythromelalgia. In erythromelalgia there was pain and burning even when the feet were elevated, the condition was often relieved in cold weather, the arteries showed good circulation and sometimes throbbed visibly, while in Buerger's disease there was usually lessened arterial flow, and frequently total obstruction as the disease progresses.

DR. TRIMBLE said that Dr. Lane had spoken mainly of the subjective symptoms, which were liable to be different in a series of cases at different times. Some new subjective symptoms may have been noted since Weir Mitchell described the condition, which might cause some different term to be applied to it.

BLASTOMYCOSIS. Presented by DR. WISE for DR. FORDYCE.

H. C., man, aged 40, a paper hanger by occupation, presented himself, April 19, with a lesion occupying the entire dorsal surface of the right hand. The disease was of five months' duration. The lesion consisted of a raised, sharply defined, reddish yellow, doughy plaque, the surface densely studded with large pinhead-sized, papular excrescences, closely set together and bathed in a more or less viscid film of pus. Smears revealed the presence of blastomyces, and histologic examination of a piece of tissue showed the usual structural changes of the affection.

DISCUSSION

DR. TRIMBLE said that even though the lesion was covered with ointment, one could see through the ointment, the moisture, which in these cases was a good clinical diagnostic point.

CASE FOR DIAGNOSIS (NEUROMA?). Presented by DR. WISE.

N. Y., man, aged 34, was referred to the speaker by Dr. Brenner. The lesions had been present since birth. The right arm, dorsal surface, and the forearm over the radial surface, presented a large number of papules varying in size from a barley corn to a pea. These papules were closely set together. Their color varied from a bright yellowish brown to a distinct brown tint on the upper arm; on the forearm, the papules were generally reddish pink in color and were closely grouped. In consistence, most of the papules were firm and indurated. Pinching one of them between the fingers elicited a sharp twinge of pain. The surface of the lesions was quite smooth and free from scabs. The left leg anteriorly presented several dozen smaller lesions and there were a few isolated pea-sized papules elsewhere, one on the left hip and one on the inner surface of the left thigh above the knee. A report of the biopsy findings will be presented at the next meeting.

DISCUSSION

DR. TRIMBLE said that he would not offer a diagnosis except for the remark that the patient had had the lesions all his life. It resembled a neurofibroma. It was very clearly depicted in one of the textbooks.

PARAPSORIASIS EN PLAQUES. Presented by DR. HEIMANN for DR. SCHWARTZ.

The patient was a man, aged 55. The eruption had been present five years, was confined to the lower extremities, did not itch, and consisted of very superficial, sharply defined patches of a pale red color, covered with a fine white scale.

DISCUSSION

DR. HEIMANN told of a recent case of parapsoriasis in which the plaques were distributed like those in Dr. Schwartz' case. The patient was a man about 50 years of age, who had had the condition for twelve or fifteen years. Then two or three of the lesions began to itch, etc., and the condition made the speaker wonder whether it was going to develop into mycosis. A week later it was a well developed case of dermatitis herpetiformis. Dr. Goldenberg saw the case, and they both came to the conclusion that it was dermatitis herpetiformis in conjunction with an old parapsoriasis.

GUMMA OF PENIS. Presented by DR. WISE for DR. FORDYCE.

J. S., aged 46, a negro man, was married but had never had children. He appeared at the clinic on the day of presentation, so that the speaker was unable to report with regard to microscopic and serologic tests. He denied ever having had a chancre. The lesion on the penis was of about six weeks' duration and consisted of an ulcer which implicated the greater portion of the glans, extending upward and involving the entire corona and sulcus, as well as the anterior portion of the prepuce. The ulceration was about one-half inch in depth; the edge was sharply defined, somewhat rolled, indurated, and hypertrophic. The interior of the ulcer was occupied by a ragged looking mass of necrotic, foul smelling, purulent material. There was no inguinal adenitis. The lesion was only moderately painful. The general health of the patient was fair.

DISCUSSION

DR. MACKEE thought that the possibility of local gangrene, gangrenous balanitis, or chancroid, should be considered in spite of the absence of inguinal adenitis.

DR. TRIMBLE said there would be an immense amount of adenitis with a chancroid of that extent.

CLINICAL REPORT

NAIL CYSTS. Presented by DR. FORDYCE.

DR. FORDYCE reported a condition which had come under his observation and which he had not found described in any of the textbooks, namely, cysts on the terminal phalanges near the base of the nails. They were tense and whitish in color, and on incising them the substance that exuded resembled half coagulated white of egg. The only interpretation that he could offer was that the matrix of the nail was injured and the imperfect nail formed a cyst. It could be cured by curetting and applying some substance which acted like iodine. Two patients were cured by such measures, but a third was not benefited. Some of the cysts were as large as a pigeon's egg.

DISCUSSION

DR. TRIMBLE said that so far as he could remember the nearest approach to the condition described by Dr. Fordyce was the synovial cysts of the skin, occurring at times on the distal phalanges near the joint.

NEW YORK DERMATOLOGICAL SOCIETY

Regular Meeting, May 27, 1918

CHARLES MALLORY WILLIAMS, M.D., *President*

CASE FOR DIAGNOSIS. Presented by DR. WINFIELD.

The patient, a 7-months-old baby, first came under observation six months ago. Two weeks after birth an eruption appeared on the head, arms, legs and feet. It was warty in character, highly inflamed, and later became pustular. When first seen by the speaker the lesions resembled vegetating dermatitis, although some of the spots suggested bromoderma. A simple antiseptic ointment cleared up the pustular condition. The patient then passed from observation until a few days ago. The eruption was still warty. The lesions tended to linear formation; they were situated on the heel and ankle of both feet, on the left arm, on the right hand, and on the left side of the head. There was no inflammation, but pressure on the lesions caused the child to cry out.

CASE FOR DIAGNOSIS. Presented by DR. WISE.

H. P., a man, aged 45, of American birth, presented an eruption which started about three years ago. It consisted of numerous crusted and impetiginous plaques, some of them presenting greasy scabs, scattered on the chest and back, varying in size from a quarter to 1 inch in diameter. In addition, there were many pigmented areas on the back, shoulders and abdomen, the sites of preexisting lesions. The scalp presented a typical seborrheic eczema. The patient stated that most of the lesions were preceded by blisters, which broke soon after their inception, resulting in the crusted spots. He also noted that slight traumatisms would readily provoke superficial excoriations of the skin (Nikolsky's sign). The disease at first resembled an ordinary seborrheic eczema, but gradually changed its appearance and assumed an impetiginous character. Itching was slight. The lesions persisted since the past two years, despite the most energetic treatment.

On the day of presentation, several flaccid bullae were noted on the arm and trunk, thus supporting the diagnosis of pemphigus or possibly epidermolysis bullosa.*

DISCUSSION

DR. HEIMANN said that the flaccidity of the bleb was not against the diagnosis of pemphigus, for the tendency of these blebs is often to be short-lived. The grouping and crusting, and all the other clinical features—excepting the fact that as yet there was no lesion in the mouth—were all in favor of pemphigus; and the presence of Nikolsky's sign indicated pemphigus foliaceus. From a series of cases studied at Mt. Sinai Hospital, the speaker said he was inclined to think that the designation of the different types of pemphigus was artificial. Of the 30 cases studied, 22 were styled pemphigus vulgaris; 8 were either pemphigus foliaceus, or vegetans, etc. One case had an association of foliaceus and vegetans. Watching the clinical course of all these cases, it was found that they passed from one type to another in a very capricious manner, so that a case that came on with one type might develop the characteristics of another and then lapse into the former. Microscopically, there was no doubt that this case was pemphigus. The anatomy was certainly not that of Dühring's disease.

DR. TRIMBLE said that if he was not mistaken he had seen this case before. The fact that the man had blebs and had pemphigus, brought out an interesting feature. When this case was shown at the Academy of Medicine some time since, he was inclined to think the diagnosis was easy, although at that time a number of diagnoses were made—one being lichen planus. At that time he thought the condition was a seborrheic keratosis developing on an eczema, and said then that one might term it a keratosis senilis developing on a seborrheic eczema. Evidently that was a mistake, as the man had since developed blebs. Three years ago at the Skin and Cancer Hospital they had a patient with lesions on the chest and back in the location for seborrheic eczema that greatly resembled this when first seen. A salve of salicylic acid and sulphur was prescribed, but without benefit; on the contrary, the salve seemed to irritate the condition, and two or three of the lesions appeared white and examination revealed a small amount of fluid in the lower part of the lesion; the man had pressed them, and developed a typical pemphigus foliaceus. The man died in the hospital, within six months after admission. When first seen the condition was that of a typical seborrheic eczema, but after the pustular condition developed the patient became worse rapidly.

DR. WINFIELD said that the case to which Dr. Trimble had referred was that of a patient of his own who had what was supposed to be seborrheic eczema and later developed blebs. At one time he became very much better;

*A biopsy confirmed the diagnosis of pemphigus.

the seborrheic condition cleared up and he disappeared from observation. Later his family reported that he was in the Skin and Cancer Hospital. He had very much the appearance of this patient when first seen, excepting that his eczema was much worse.

DR. MACKEE agreed with what Dr. Heimann had said. The case was undoubtedly pemphigus and would probably turn out to be pemphigus foliaceus.

DR. WISE agreed with the diagnosis of pemphigus.

DR. TRIMBLE, referring to Dr. Wise's remarks about the duration of pemphigus, said that in his experience pemphigus foliaceus lasts a very long time. He had not seen a great many cases, but they had all lasted at least two years. There was now in the Skin and Cancer Hospital a patient who had pemphigus foliaceus who had been there three years. The condition was almost universal, and the patient became worse and then better. He was not confined to his room, but walked about the hospital. Of course the outcome was inevitable. Patients with other forms of pemphigus died after a fairly short course.

DR. HEIMANN said it was true that pemphigus foliaceus proved fatal later than other forms, but five patients in a series of thirty cases died within six months. One case had persisted for two and a half years; this was first studied at Mt. Sinai Hospital and then went to the Skin and Cancer Hospital and was under Dr. Whitehouse's care. The speaker said he did not think it a wise choice of words to apply the term "benign" to such cases; the end was only delayed.

DR. SHERWELL considered it an exceptional form of dermatitis herpetiformis. In comment on the conclusions of several of the members as to the always fatal issue and rapid course of the disease in question, he cited a patient whom, about forty years ago, he had brought to the attention of the Society and afterward had presented the patient in an improved condition. At the time, the patient was a child, a little girl of German parentage living in Brooklyn. The case was published in full in the *Archives of Dermatology* for January, 1877. Perhaps there never was a case more exactly bearing out in all respects the classic description of the disease by Cazenave and Bielt. The patient was now a woman and married, but had no children. She had had several relapses in the course of the past years, each perhaps less typical as time went on. The speaker said that he had attended her for one of these relapses last fall, when she presented bullae—flaccid, with the buttermilk-like content form—all over the superficies of the body, on the tongue and fauces; the lesions drying on the body and falling off in immense quantities, so that when the patient stood erect, or as nearly so as she could, the surface around her resembled an ill-swept hearth. The speaker referred the members to the original report which he had cited, and said that he had photographs of the patient which he would show at a subsequent meeting of the Society. Probably Dr. Fox and some of the other older members would recall the case.

DR. G. H. FOX said he remembered the case referred to by Dr. Sherwell, and said that a picture of it was published in the *Archives of Dermatology*. It was a typical case of pemphigus foliaceus, but the patient did not die. It was the only case he had ever known that did get well.

MYCOSIS FUNGOIDES. Presented by DR. SHERWELL.

Mr. S. R., aged 39, came to the office on May 10 with a generalized eruption of somewhat milder grade than as when presented, the treatment applied having apparently benefited him. Its first appearance was about four years ago and occurred in the fold of the right arm; later it appeared on the back, then in and around the groins, and then became generalized over the trunk and extremities—never on the face or scalp. There was never any appearance of eczematous or other discharge, only a slight furfuraceous

desquamation at any time. The subjective symptoms consisted of a moderate amount of pruritus, occasionally intensified. The lesions gradually increased—not rapidly—remaining for a considerable time of the same size, without improvement under medical treatment. The patient had been under the care of four physicians at various times, and was at the Polyclinic last year. The speaker asked for confirmation of his diagnosis and for suggestions as to further treatment. He had given the patient a lotion of which the active elements were bichlorid of mercury, salicylic acid, emulsion of bitter almonds, and dilute hydrocyanic acid; also, internally, the iodids and arsenic, and an antirheumatic and tonic mixture. The pruritus had ceased, and there was a decided improvement in the livid and slightly raised lesions, the centers decidedly clearing.

DISCUSSION

DR. WISE agreed with the diagnosis, which was accepted without dissent by all the members.

CASE FOR DIAGNOSIS. Presented by DR. WISE for DR. FORDYCE.

A. L., a woman, aged 18, single, was referred to the Vanderbilt Clinic from the Presbyterian Hospital with a diagnosis of favus of the leg. The lower portion of the left leg, anteriorly, presented a lesion of two and a half years' duration. It consisted of an irregular, red, slightly ulcerated, indurated area, about 3 inches in diameter, full of scales and studded with several small excoriations containing pus. The general appearance was that of erythema induratum. The bacteriologist at the Presbyterian Hospital had made a microscopic examination of the secretion on the surface of the lesion and had reported finding the favus mycelium. On presentation no evidence of favus was visible. Above the original lesion were several smooth depressed scars, resembling those of syphilis or of Bazin's disease. The patient had had over a dozen Wassermann tests, all of which were negative. A microscopic examination of a piece of excised tissue was under way.

DISCUSSION

DR. LANE felt very sure it was not favus. The diagnosis seemed to lie between Bazin's disease and syphilis. He thought the therapeutic test for syphilis would probably settle the diagnosis promptly.

DR. HEIMANN said that clinically it was a case of erythema induratum.

DR. WINFIELD said he would have to test the case therapeutically before attempting to make a diagnosis.

CASE FOR DIAGNOSIS (SARCOID OR LUPUS ERYTHEMATOSIS).

Presented by DR. TRIMBLE.

The patient was a man, aged 34. The skin affection was limited to the face, and the duration was three years. On close questioning, the patient said that on one or two occasions, the affection had disappeared, only to return after a short period of freedom. The condition consisted of several semi-nodular lesions, on both cheeks. The exact location was over the malar bones and they were more numerous on the left side than the right. The color was dusky red with a livid hue. They were distinctly nodular, though not hard.

DISCUSSION

DR. WINFIELD favored the diagnosis of sarcoid.

DR. HEIMANN said that on the whole he was inclined to favor the diagnosis of sarcoid, but he had seen a case originating as this one did and developing into lupus erythematosus. The more he saw of these border line cases the more confused he becomes as to how to classify them.

DR. LANE agreed with Dr. Heimann that the more one saw of these cases the more confusing became the classification and the more uncertain the clinical diagnosis. One feature that seemed to disagree with either diagnosis was the fact that the lesions came out and disappeared so rapidly. The man stated that they came on in a week or two and then disappeared as quickly for considerable periods. The appearance was certainly more like sarcoid than lupus erythematosus.

DR. GILMOUR said he saw the case some time ago. Dr. Johnston also saw the case. They did not think it was lupus erythematosus, but as it came and went they made a diagnosis of erythema multiforme.

DR. MACKEE favored a diagnosis of lupus erythematosus, basing the contention, however, largely on the history. In lupus erythematosus there were at times acute exacerbations when the lesions became nodular on account of the marked, deep-seated, circumscribed edema. Such nodules were evanescent, however, and in two or three weeks they would flatten down spontaneously.

DR. TRIMBLE said that he had seen the patient for the first time that afternoon, and from the color and appearance of the nodules he was inclined to think the condition was sarcoid; the diagnosis of lupus erythematosus was, however, to be considered on account of the localization of the lesions. The sarcoids that he had seen were not bilateral and symmetrical. They may have been on both sides but were not symmetrical, like those on the man's face. On these two points he had made a tentative diagnosis of lupus erythematosus. The history of complete disappearance of the lesions had been elicited. It was difficult to account for this occasional disappearance.

Sarcoid, as was well known, disappeared, though if a reasonably large lesion it was likely to leave some deep atrophy. Evidently this man's former attacks had not left any atrophy.

MANHATTAN DERMATOLOGICAL SOCIETY

Regular Meeting, May 14, 1918

HOWARD FOX, M.D., *Chairman*

TINEA CIRCINATA VESICULOSA. Presented by DR. WEISS.

The patient was a boy who had had the eruption since the age of 4 years. There was scaling of the lesions which were serpiginous in shape, and which involved the ankles and flexors of the fingers. The speaker considered the eruption to be tinea circinata vesiculosa exhibiting the characteristic dysidrosis with infected vesico-bullae. This was the type of ringworm of the hands and feet described by Ormsby and Mitchell when the mycotic element joined the vesiculous one.

DISCUSSION

DR. PISKO considered the case to be eczema.

DR. WISE said it was extremely difficult to say whether it was an eczema or tinea, although he was in favor of the former. It would be impossible to make a differential diagnosis without a culture.

DR. GILMOUR diagnosed the case as eczema.

DR. SATENSTEIN said we had heard so much of tinea of the hand that when we could not make any other diagnosis we called conditions tinea, without any actual microscopic proof.

DR. WEISS said he would make cultures and report at the next meeting, in the fall. The demonstration of the fungi, however, was a very difficult one, especially when secondary infection had taken place.

CASE FOR DIAGNOSIS. Presented by DR. WEISS.

The patient, a young lady, presented an area of minute punctae in clusters on the chin. The condition had been present three years and presented a purpura-like appearance. The lesions did not disappear under pressure and apparently were punctate hemorrhagic lesions.

DISCUSSION

DR. WISE said it was very difficult to make a diagnosis in this case with artificial light. The patient had acne, seborrhea oleosa and a seborrheic patch on the chin which would be called rosacea if seen in an older woman. The speaker thought it was analogous to rosacea in an older person, on a seborrheic base.

DR. PISKO said if the condition was on the nose no one would hesitate to call it *eczema rubrum nasi*.

DR. WEISS said he first thought it was acne as there were acne lesions on the cheek, but when he found that the whole group was of a very small, slightly raised papular type, without vesiculation, and of a minute purpuric appearance, his diagnosis of acne became somewhat uncertain.

ANNULAR SYPHILID. Presented by DR. OCHS.

The patient, a negress, aged 22, had had a generalized annular syphilitic eruption two weeks before presentation, which involved the face, legs, arms, buttocks, and the back; in fact, it was generalized. The lesions all healed with hyperpigmentation around the location of the lesion and depigmentation within its area.

ANNULAR ATROPHIC LICHEN PLANUS. Presented by DR. GILMOUR.

The patient was a man, aged 28, born in the United States, a jeweler by occupation, who developed a small spot on the anterior aspect of the left forearm and also on the right leg, six weeks before presentation to the Society. The lesions had become papular and ringlike in appearance. They did not itch and had gradually spread over the body. On the left side of the mouth, near the tonsil, there was a bluish spot which was eroded. The speaker thought the lesions were the atrophic and annular form of lichen planus. The center of the ringed lesions, which were made up of polygonal papules, showed a distinct atrophy. A few outlying lesions showed a faint purple color, were angular and had somewhat depressed centers. The interesting fact was that the patient had no itching but appealed for treatment because he was rejected from the service on account of his skin condition.

LEUKONYCHIA. Presented by DR. WEISS.

The patient, a barber, aged 34, had an affection of all of the finger nails, which were well-shaped and snow-white. The discoloration started four years ago and spread gradually. The nails were extremely soft and showed a subungual hyperkeratosis under the free ends. The patient was bald and wore a wig. He presented anomalies of the nails with an atrophic condition of the hair which was frequently observed and showed an evolutionary defect and predisposition for diseases of the skin.

DISCUSSION

DR. GILMOUR said he thought it was hard to make a diagnosis of affections of the nails. He had a patient who came to the clinic in which the nails were undermined and there was scaly material under the nails, and if the patient had not had typical psoriasis he would not have known what to call the condition.

DR. OCHS said he thought the process was due to pushing back the cuticle with subsequent injury of the nail. It reminded him of a case he presented a few years ago, a young lady who had every nail affected, leukonychia striata. He obtained a history that she had been pushing the cuticle back and when this was discontinued the nails grew out and assumed a normal appearance.

DR. GILMOUR said he saw a patient in whom the appearance of the nails was similar to this one. It was treated with 10 per cent. ammoniated mercury ointment and the nails grew out quite normally. In his case the diagnosis of psoriasis was made by the presence of other lesions on the body.

DR. WEISS said the man was bald and this might have something to do with his resistance to treatment. Also his occupation might have something to do with the condition. A local nail affection not depending on psoriasis, tinea, or some other affection, was most likely based on a deficient internal secretion influencing the normal evolution of the adnexa. The speaker said he would like some suggestions regarding the treatment of this case.

DR. WISE said he had two similar cases and nothing but prolonged roentgen-ray treatment did any good. The patients finally recovered.

SENILE KERATOSIS OF THE NOSE AND PEDUNCULATED SEBACEOUS CYSTLIKE GROWTH OF THE FOOT. Presented by
DR. PAROUNAGIAN.

H. R., a man, aged 46, born in the United States, was a salesman by occupation. He had two small lesions on the nose of four years' duration which were senile keratotic in type. There were no subjective symptoms. He presented on the right foot, 1 inch below the external malleolus, a silver quarter-sized growth which was pedunculated, red, scaly, with round borders, fairly soft and not painful. He gave a history of having a wartlike growth after which it began to grow and the pressure of the shoe produced a mushroom-like appearance. He also had a small wartlike growth on the left foot.

DISCUSSION

DR. GILMOUR diagnosed the case as fibroma.

DR. WISE made a diagnosis of epithelioma.

DR. SATENSTEIN said the condition was common on the ear of athletes and usually followed a hematoma. This patient probably had had a hematoma. The case was similar to one presented by Dr. Ochs. The speaker advised excision of the lesion.

DR. GILMOUR said the patient told him he had not had a history that would indicate that he had ever had a hemorrhage that resulted in a hematoma. He thought the condition did not in any way resemble that known as cauliflower ear.

DR. PAROUNAGIAN said he presented the case with the diagnosis mentioned to bring out discussion. He would excise the tumor and depend on the microscope for diagnosis.

FUNGATING EPITHELIOMA. Presented by DR. OCHS.

The patient was an adult woman, aged 40, who had been seen by the exhibitor for the first time the day before presentation to the Society. She presented on the anterior surface of the left leg an outgrowth of one year's duration. She had had no pain nor any subjective symptoms. She stated that she had struck herself on the fire-escape while putting out wash. The exhibitor expected it to be the beginning of an epitheliomatous degeneration. The papillomatous outgrowth was about $2\frac{1}{2}$ inches long and about 1 inch in diameter. At its base it was narrower than in its center, was soft to the touch, and hung down parallel to the leg. Its distal end showed blood crusts and had slight induration which prompted the diagnosis of epithelioma.

TUBERCULOSIS OF THE THROAT. Presented by DR. PAROUNAGIAN.

The patient, Joseph B., Russian, aged 54, a tailor by occupation, was from the Gouverneur Clinic. His father died at the age of 72 from diabetes; his mother was living, aged 75, and in good health. He had had a cough for the past ten years. He denied a venereal history and the Wassermann and tuberculin tests were both negative, as was also an examination of the lungs. The condition of the throat consisted of extensive superficial ulceration involving the left tonsil and the greater portion of the pharynx extending toward the right side. It was not painful, and according to the patient's statement had been present about four or five weeks. No glandular swelling was present.

REPORT ON CASE PRESENTED FOR DIAGNOSIS AT LAST MEETING. DR. OCHS.

DR. SATENSTEIN reported on the microscopic findings in the case of the young man with nodules on the face. One of the nodules was excised and found to be a very active basal cell epithelioma. The diagnosis of benign cystic epithelioma had been made by Dr. G. H. Fox, and some one suggested sarcoid and tuberculosis. Epithelioma had also been suggested.

DR. OCHS said he presented the case as one of epithelioma but had never seen one as prolific as this case. As near as he could remember there were over seventy-five lesions scattered over the face.

CHICAGO DERMATOLOGICAL SOCIETY

Regular Meeting, Feb. 20, 1918

DAVID LIEBERTHAL, M.D., *President*

LICHEN PLANUS. Presented by DR. HARRIS.

The patient was a woman, aged 54 years, who presented a lesion of the tongue which had been present for six months. The lesion was a noninfiltrated, oval plaque on the left side of the anterior part of the dorsum of the tongue. There was a somewhat cleared area in the center which gave it a bull's eye appearance.

DISCUSSION

DR. McEWEN said he did not know what the tongue condition was. The woman impressed him as being either a nephritic or the victim of recent hemorrhage.

DR. QUINN had thought of lupus erythematosus in connection with the case.

DR. PUSEY was convinced that it was a case of lichen planus limited to the mouth.

DR. HARRIS said his diagnosis was lichen planus, but the case had been sent to him as carcinoma of the tongue. He found one circinate patch on the right cheek and later another patch appeared below. He believed it was a typical lichen planus. The anemia was due to the fact that the patient had been living under poor conditions and was despondent. She was now receiving protiodid of mercury. The lesion was an annular patch of lichen planus. The patch on the cheek had a definitely elevated edge.

HYDROA VACCINIFORME. Presented by DR. SHAFFNER.

The patient was a boy, aged 10, who had an eruption of four years' duration which recurred in the summer, usually clearing up in winter but leaving scars. He had a very mild attack this winter at the height of the blizzard. Scars

were present on the face, including the nose, where a moderate atrophy existed; scars were also present on the backs of the hands and the lower forearms. The mother stated that the eruption consisted of vesicles and large bullae. Extreme heat even with full protection of the skin had provoked severe attacks in the past summers.

LICHEN CHRONICUS, VIDAL. Presented by DR. LIEBERTHAL.

The patient was a lady, aged 45, who had always enjoyed good health and never been subject to any skin disease. The present condition began on the neck about a year ago in the form of a dry, itchy patch and had gradually increased to its present size. No other part of the body was affected.

DISCUSSION

DR. PUSEY considered it a lichen planus and thought the patch was too small and the individual lesions were too big for the lichen simplex chronicus. It was only in one patch on one side of the neck. The lesions were like minute keloids and had the color of lichen planus. He believed it was not necessary for the lesions to become general and that a microscopic section should be made to settle the diagnosis.

DR. LIEBERTHAL said his opinion was based not only on the appearance of the lesion, but also on the fact that the skin was itchy before any lesion occurred; furthermore, that in over a year no other parts of the skin showed lesions of lichen planus.

CASE FOR DIAGNOSIS. Presented by DR. HARRIS.

The patient was a negress, aged 35, married, who had an eruption on the arms, palms and back, which had been present for two years. The eruption consisted of erythematous papules which came out in groups, underwent involution in the center and left an atrophic scar which was somewhat scaly. There was no evidence of ulceration at the time of presentation.

DISCUSSION

DR. STILLIANS said he had seen the case two weeks previously and tried to make a tuberculid out of it but could not, because of the lack of evidence of central necrosis or increased pigmentation. He thought it was a diffuse lupus erythematosus.

DR. FOERSTER believed it was a papulo-necrotic tuberculid.

DR. PUSEY agreed with Dr. Foerster and wanted to know what Dr. Harris found about the glands. He thought lupus could not be entirely ruled out on account of the lesions on the hands.

DR. HARRIS believed it was a lupus erythematosus and that the lesions on the hands were typical of that disorder. The patches were covered with a scale but there was no evidence of necrosis. He had taken a section from the middle of a lesion and this showed flattening of the epidermis with almost no infiltration.

DR. McEWEN thought the scars were rather deep and punched out for those of lupus erythematosus and that a patient with such an extensive case of that disorder would probably have died before reaching the present stage.

DR. FOERSTER had never seen a case of lupus in a colored person which had not shown a great amount of loss of pigment.

DR. HARRIS thought if the case was seen six months later the loss of pigment would be present. There were no crusts at all, just scales and not such as would be found in a tuberculid.

CHEILITIS GLANDULARIS. Presented by DR. WAUGH.

The patient was a man, aged 60, who had had the disorder one and one-half years. There was an oval-shaped, reddened, moderately tender and slightly indurated lesion involving one-third of the vermillion border of the lower lip. It began as a reddened area on the mucosa, which spread gradually. There had been moderate tenderness since the onset. The surface presented numerous pinhead and slightly larger yellowish crusts, which when removed, revealed small openings from which a yellowish viscid material would be expressed.

The margins of the lesion were sharply defined, and the mucosa showed a purplish red areola surrounding the affected area. The lesion extended to, but did not involve, the cutaneous part of the lower lip. A small, pea-size, firm, painless nodule could be felt beneath the mucosa, near the affected area. The submaxillary glands could not be palpated.

DISCUSSION

DR. McEWEN thought it was an epithelioma of the lip.

CASE FOR DIAGNOSIS. Presented by DR. HARRIS for DR. ZEISLER.

The patient was a Japanese student, aged 25, who had white lines on the hips which he claimed had appeared three or four years previously. At the time of presentation the patient showed many linea albae.

PITYRIASIS ROSEA. Presented by DR. STILLIANS.

The patient was a young woman, aged 16, a factory worker, who entered the hospital a month before presentation with a slight eruption on the shoulders and neck and upper arms. The original eruption had cleared up and at the time of presentation there were only a few lesions left. There was only very slight itching.

The original eruption consisted of oval patches, scaling at the borders and one or two clearing at the center; they were very slightly elevated, of a chamois color, distributed fairly symmetrically over the shoulders, front of the chest and upper arms. As the eruption began to clear new lesions appeared, pinkish maculo-papules, a few of which were present at the time of presentation. The Wassermann reaction was negative. The case was shown because of its chronicity.

DISCUSSION

DR. HARRIS said that when he first saw the case it looked like a maculo-papular syphilis. The patient was put on treatment but the lesions did not clear up.

DR. STILLIANS stated that the original lesions had cleared up under a zinc paste with benzoic and salicylic acids.

DERMATITIS STAPHYLOGENES. Presented by DR. McEWEN.

The patient was a man, aged 38, who had scratch marks over the entire body. The patient said he had been scratching for three months. The lesions around the genitalia had been present for two or three months. He denied alcoholism and venereal infection. The Wassermann reaction was negative.

The second patient (Goldie) was the same young woman who had been exhibited at two previous meetings. The dermatitis consisted of seborrheic pustular growths which involved the region around the ears, the groins, the flexors, and was very profuse in the genital region. She had improved wonderfully under autogenous vaccine, but there had been a recurrence which had not yet subsided.

DISCUSSION

DR. PUSEY believed the man's dermatitis was due to irritation of some sort—he might have been working in lime or it might have been just dirt—and he had a pus infection. He saw no reason to regard the pus infection as the primary factor. He was such a skeptic about vaccines that he was very slow to accept the idea of vaccine curing these cases. He thought the fact that the patient had been in the hospital and properly taken care of accounted for the improvement rather than the vaccine.

DR. STILLIANS thought that vaccines were not always specific. They acted as foreign proteid and produced effects broader than an increase of resistance to the organisms of which they were made. He did not like to accept a cure from a vaccine as very valuable evidence that the disease was due to the particular germ contained in the vaccine.

DR. QUINN thought Dr. McEwen was on the right road to try to simplify a great many things. He was sure that he had seen the same organism produce lesions differing in character and believed this was a move in the right direction.

DR. PUSEY thought the rôle of pus organisms in these diseases after they once became started was rather important. There might be a focus of infection as the result of some sort of insult to the skin and there was a dermatitis as a result. In the case of the man he would depend on getting him cleaned up in the ordinary sense of the term.

DR. POTTHOFF thought it was a pus infection.

DR. HARRIS could not see any evidence of pus infection. He thought the improvement under vaccine therapy was due to the fact that the vaccine changed the chemistry of the body in some way, but not necessarily in a specific manner.

DR. LIEBERTHAL thought there probably was some systemic derangement which was keeping the dermatitis so stubborn. He had seen some good results from tuberculin in similar instances.

LEPRA. Presented by DR. HARRIS.

The patient was a man, aged 29, a Greek, who had been in this country one and one-half years, coming from the Island of Samos. For over a year he had shown papular lesions of the face and the upper extremities, some of which had become necrotic, leaving pigmented scars. From the necrotic lesion as well as in the excised papules the bacillus of Hansen was readily demonstrated.

ACNE ROSACEA IN A SYPHILITIC, WITH ACTIVE SYPHILITIC LESION. Presented by DR. McEWEN.

The patient was a man, aged 60, who presented an eruption of the face which had been present for six weeks. The lesions were symmetrical, and consisted of hard, multiple papules and pustules on an erythematosus background. There was a history of chancre seventeen years ago, the Wassermann reaction was positive and the patient had received some mercurial treatment. He was presented as a good illustration of the occasional necessity of differentiating between rosacea and syphilis.

DISCUSSION

DR. LIEBERTHAL thought the lesions were unquestionably syphilitic, not rosacea.

DR. McEWEN thought the lesions on the cheek were those of rosacea and not of syphilis and that the syphilis was in the background, without present clinical manifestations. The patient had been on antisyphilitic treatment for only three or four days.

GROUPED PAPULO-SQUAMOUS SYPHILIS. Presented by DR. HARRIS.

The patient was a man, aged 23, who presented lesions of the shoulder, throat and lip which had been present for a year. He had had syphilis for eleven months and for about four months had had the eruption which he exhibited. He also showed a large mucous patch of the upper lip and left tonsil. The Wassermann reaction was positive.

DISCUSSION

DR. HARRIS stated that the man had been receiving treatment for eleven months, ever since he had the first lesion.

ATROPHIA MACULOSA ET STRIATA. Presented by DR. QUINN.

The patient was a man, aged 50, Polish. He presented marked varicosity of the veins of the lower extremities and also marked atrophy of the skin of the legs and arms with erythematous spots with hyperemic capillaries, terminating in scars.

DISCUSSION

DR. HARRIS thought it was a case of acrodermatitis atrophicans.

DR. McEWEN asked why it could not be called an idiopathic atrophy.

DR. PUSEY believed it was a poor plan to give a specific name to a lesion like that. The man had an atrophy of the skin as the result of his varicose veins and the secondary changes had come from passive hyperemia and inflammation. The man probably had poor material in his veins to start with and the changes in the skin were secondary to that. So-called atrophy of the skin came from a good many chronic conditions of the skin—from chronic dermatitis of the legs, for example. He considered the condition in this case just a terminal stage of another process and thought the essential process was a failure of the vascular system in the legs.

DR. HARRIS said that a good deal of the varicosity was apparent rather than real and it affected the lower extremities much more than the upper.

DR. STILLIANS agreed with Dr. Harris that it was a form of chronic atrophy that affected the extremities instead of the body. There was another form which appeared in various places and became disseminated, involving trunk and limbs. In the former type the lesions only went to the buttocks and then stopped.

TINEA SYCOSIS. Presented by DR. McEWEN.

The patients were both men, aged about 25 and 30, respectively. One of them was a hostler and the other drove an express wagon. The lesions were typical of tinea barbae and the diagnosis had been confirmed microscopically. They were shown as classic examples of a relatively uncommon skin disorder.

Correspondence

FOLLICULITIS ULERYTHEMATOSA RETICULATA

To the Editor:—The writer sincerely regrets that Dr. Charles J. White's article "Nevus Follicularis Keratosis," published in THE JOURNAL OF CUTANEOUS DISEASES, March, 1914, was inadvertently overlooked while searching the literature for cases resembling the disease published under the heading of "Folliculitis Ulerythematosia Reticulata," by Dr. Parounagian and the writer, in THE JOURNAL OF CUTANEOUS DISEASES, June, 1918.

While the writer does not believe that the two conditions are of the same clinical entity, others may have the opposite opinion. Furthermore, there are histologic similarities which make it advisable that future investigations of folliculitis ulerythematosia reticulata should include White's nevus follicularis keratosis.

In response to an invitation Dr. White has kindly enumerated the similarities and dissimilarities between the two diseases. They are as follows:

They are both examples of follicular keratosis. They both show intra-dermal cysts and these cysts contain stratified keratin. The follicular orifices in both instances are dilated and plugged with keratin. There is little inflammatory reaction—less in Dr. White's case than in ours. His case does not end in scarring—ours does. His case was congenital—ours might have been. Dr. White does not say that the two conditions are the same but believes that they are similar and that they might prove to be the same.

The writer agrees with the above mentioned similarities with the exception of the inflammation. In our cases, in places there was a pronounced infiltration and all through the sections the blood vessels and lymph spaces were rather markedly dilated. They even contained coagulated serum and red cells. Also there was some modification of the vessel walls. It was not proved whether the inflammation was primary or secondary. It must be admitted, however, that the difference in these probable secondary changes are unimportant.

Admitting the similarities, there are several important histologic points in our cases not found in Dr. White's patient. The writer refers particularly to the budding processes from the follicles, some of which developed into horn cysts, others into cell-nests, while still others seemed to be abortive attempts at sebaceous gland formation. Histologically, in our cases, there was a distinct degeneration of collagen with subsequent retraction of the derma. The sebaceous glands were decidedly undeveloped. The writer does not desire, however, to separate the two conditions because of these differences in histologic details. This indeed would be a risky undertaking. It is on clinical grounds that the two conditions are most strikingly dissimilar. In Dr. White's case there was a bandlike lesion extending around the side of the trunk and containing enormous follicular orifices, many of which contained a plug resembling a very large comedo. The general appearance was crateriform and sievelike. The skin throughout the band was thickened—it appeared to be deeply infiltrated on palpation. The secondary lesions consisted of boils and scars from former furuncles and in one place there was an indurated mass that was thought to be cancerous. The eruption was said to have begun at the age of 8 or 10 years and was progressive up to the time the report was made.

This clinical description does not fit our cases at all. In all the cases reported as folliculitis ulerythematosia reticulata the clinical symptoms were identical. The eruption began at about the age of 8 years and was progressive

until late adolescence when it began to subside and in adult life there might be very little evidence of the former trouble. The eruption was bilateral, absolutely symmetrical and was limited to the cheeks. There was a well marked erythema throughout the affected area. The general appearance was that of reticulation and this was due to tiny areas of retraction (atrophy) alternating with ridges that were on a level with the niveau of the skin. There were no gaping follicles and no enormous plugs (clinically). A few "comedones" could be seen with the unaided eye; while with a lens, follicular plugs could be detected both in the ridges and the retracted areas. There were no secondary lesions such as pustules, papules, furuncles, etc. The skin did not feel thickened.

Dr. White separates his case from nevus sebaceous and nevus acneiformis unilateralis because the sebaceous system was not involved. In our cases the sebaceous system was involved as evidenced by fat in many of the horny plugs as well as by the histologic evidence already mentioned. One does not hesitate to agree that Dr. White's case represents a nevus but in the same sense one hesitates to employ the word nevus in our cases.

While admitting that there is much in common between the two conditions the writer cannot, at the present moment, accept them as being the same although they both can be placed, perhaps, in that large group known as the congenital keratodermata in which there are many clinical entities.

GEORGE M. MacKEE.

BOOK REVIEWS

ROENTGENOGRAPHIC DIAGNOSIS OF DENTAL INFECTION IN SYSTEMIC DISEASES. By SINCLAIR TOUSEY, A.M., M.D., Consulting Surgeon, St. Bartholomew's Clinic, New York. New York: Paul B. Hoeber, 1916.

This booklet contains seventy-five pages, including the introduction and the index. The subject matter is based almost exclusively on some of the author's previous contributions on the same subject, with elaborations and about fifty illustrations. The little bibliography at the end of the book unfortunately is comprised of but one writer's works—the author's; hence the reader is bound to get a rather one-sided view of the subject, and after perusal of the booklet he may entertain a pardonable curiosity with respect to the opinions and experiences of other workers in the same field of medicine. The author submits numerous case reports, many of them fragmentary and incomplete. Trivial errors are numerous, but readily amenable to correction. For example, the author mentions a case of "tubercular" peritonitis and "tuberculous" pleurisy, occurring simultaneously in one patient. The difficulty of choice between the personal pronoun, "I" and the words, "the author," is somewhat painfully evident throughout the monograph.

The photographic illustrations, taken as a whole, are poor. The paper and printing, on the other hand, are excellent. M. S.

ORAL SEPSIS IN ITS RELATIONSHIP TO SYSTEMIC DISEASE.

By WILLIAM W. DUKE, M.D., PH.B., Kansas City, Mo. Professor of Experimental Medicine in the University of Kansas School of Medicine; Professor in the Department of Medicine in Western Dental College; Visiting Physician to Christian Church Hospital; Consulting Physician to Kansas City General Hospital, Kansas City, Mo., and to St. Margaret's Hospital, Kansas City, Kan. With 170 illustrations. St. Louis: C. V. Mosby Company, 1918.

A general survey of this book at once gives the reader the pleasant impression that it is the work of a careful and conscientious observer, and that the author's observations and opinions are based on a thorough acquaintance with the scientific aspects of oral infection and its influence on the general metabolism. The book comprises eight chapters, captioned as follows: Introduction; pyorrhea alveolaris; alveolar abscesses; metastatic infection; non-related infection as influenced by oral sepsis; toxic effect of oral sepsis; headache as related to oral sepsis; summary and conclusions. These chapters make good reading and will prove of interest to general practitioner as well as specialist. References and case reports dealing with acne, furunculosis and other pyodermias will interest the dermatologist, who still has a great deal to learn about the influence of oral sepsis on the causation of many cutaneous diseases.

A complete, up-to-date bibliography is appended, greatly enhancing the value of the book. The photographic illustrations are well reproduced.

The work contains 124 pages, is well printed on fine paper and has a good binding. M. S.

SYPHILIS AND PUBLIC HEALTH. By EDWARD B. VEDDER, A.M., M.D., Lieutenant-Colonel, Medical Corps, U. S. Army. Published by permission of the Surgeon-General, U. S. Army. Cloth, 315 pages. Price, \$2.25. Philadelphia and New York: Lea and Febiger, 1918.

This book is very timely in its appearance; the importance of solving the venereal problem in civil and military life, being one of the questions of the hour. The author's logical and sober views of all the efforts in this direction are the result of a large experience and therefore of more than ordinary value.

The incidence, transmission and prevention of venereal diseases are very ably discussed in the light of our present knowledge; special stress being made of points of interest to sanitarians and public health workers.

Practitioners in or out of military service will find the book worth while reading. An extensive bibliography with a subject and authors' index makes the book a handy reference volume.

E. W. A.

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Annex

Annex

